# **Christopher Charles Stewart**

2015 Neil Ave Columbus, OH 43210

## Curriculum Vitae, January 2021

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## **Research Interests**

Autonomic and Autonomous Systems, Sustainable computing, Performance modeling, Resource management and operating systems support, Data management, Interdisciplinary research

| Ter | nure-Track Employment Associate Professor, June 2016 – Present Department of Computer Science and Engineering                               | Professional Appointments<br>Visiting Faculty Member, January 2019 – N<br>University of Michigan, Ann Arbor, MI                | May 2019 |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------|
|     | Assistant Professor, September 2009 – May 2016<br>Department of Computer Science and Engineering<br>The Ohio State University, Columbus, OH | Faculty in Residence, January 2016 – Janu<br>Translational Data Analytics Institute<br>The Ohio State University, Columbus, OH | ary 2018 |
|     | Post-Doctoral Research, January 2008 – June 2009<br>Department of Computer Science<br>University of Rochester, Rochester, NY                | Diversity & Inclusion Chair, January 2011 –<br>Department of Computer Science and Eng                                          |          |
| Edu | ucation                                                                                                                                     |                                                                                                                                |          |
|     | Ph.D. in Computer Science, University of Rochester                                                                                          |                                                                                                                                | 2008     |
|     | M.S. in Computer Science, University of Rochester                                                                                           |                                                                                                                                | 2005     |
|     | B.S. in Computer Science, Morehouse College                                                                                                 |                                                                                                                                | 2003     |
| Pro | fessional Accomplishments and Highlights                                                                                                    |                                                                                                                                |          |
|     | Tech Transfer  Delivered smart classroom platform for Columbus me                                                                           | etro school system (1300 end users).                                                                                           | 2018     |
|     | Oversaw the creation of TDAI Data Commons, a univ                                                                                           | ersity-wide repository for data sets.                                                                                          | 2017     |
|     | Developed job scheduling algorithm for genetic analy                                                                                        | sis at Nationwide Children's Hospital.                                                                                         | 2013     |
|     | Developed performance modeling product for Interne                                                                                          | et services at Hewlett Packard.                                                                                                | 2009     |
|     | Education and Outreach Median student evaluation of instruction (SEI) score                                                                 | 1.6 out of 5.                                                                                                                  | 2018     |
|     | Advised OSU ACM-W and helped grow membership corporate sponsorship by 4X and sent over 150 stude                                            |                                                                                                                                | 2018     |
|     | Co-chair of Workshop on Diversity in Systems Resea                                                                                          | rch (Diversity).                                                                                                               | 2013     |
|     | Leadership Led the most successful fund raising effort ever for O (OCWIC) as academic sponsorship co-chair                                  | hio Conference on Women in Computing                                                                                           | 2019     |
|     | Program committee co-chair for IEEE International C                                                                                         | Conference on Autonomic Computing.                                                                                             | 2017     |
|     | Editor and co-founder of IEEE STC on Sustainable Co                                                                                         | emputing (600 members).                                                                                                        | 2011     |

## **Keynotes and Distinguished Lectures**

- 1. *Distinguished Lecture*, "Data-Driven Management for Autonomous Systems", National Chung Hsing University International Forum on Autonomous Unmanned Aerial Vehicle Application (2019)
- 2. *Distinguished Lecture*, "Smart Columbus: Powered by Integrated Data Exchange (IDE)", 2019 Smart City Summit & Expo: Technology, Application and Innovation for Smart Cities (2019)
- 3. *Keynote*, "Translational Data Analytics Institute: An approach to solve real, hard problems", Workshop on Big Data for Nuclear Power Plants (2018)
- 4. *Keynote*, "Smart Columbus: Powered by Integrated Data Exchange (IDE)", Midwest Big Data Hub at University of Michigan (2017)
- 5. *Invited Speaker*, "Efficient and Sustainable Models for the Next Generations of Internet Services", Presented at Rutgers University, Northwestern University and Georgia Tech (2014)
- 6. *Invited Panelist*, "Quality-aware Data Intensive Services", Big-Data Management session at ICAC Conference (2014)
- 7. Invited Speaker, "Adaptive Green Hosting." Presented at Morehouse College (NSF M-WISE). (2012)
- 8. *Invited Speaker*, "A Key Value Store that Supports Strict SLAs and the Applications that Need it." Presented at Microsoft Research Labs, VMWare, Pacific Northwest National Labs and Google (2012)
- 9. *Invited Speaker*, "Modeling and Management for Internet Services." Presented at University of Indiana/Purdue University at Indianapolis. (2010)

#### **Publications**

Maxwell Taylor, Haicheng Chen, Christopher Stewart and Feng Qin, "AVIS: In-Situ Model Checking for Unmanned Aerial Vehicles" In: IEEE Conference on Dependable Systems and Networks, 2021

MD Yang, JG Boubin, HP Tsai, HH Tseng, YC Hsu and C Stewart, "Adaptive Autonomous UAV Scouting for Rice Lodging Assessment Using Edge Computing with Deep Learning EDANet" In: Computers and Electronics in Agriculture 179, 105817, 2020

B Varghese, N Wang, D Bermbach, CH Hong, E de Lara, W Shi and C Stewart, "A Survey on Edge Benchmarking" In: ACM Computing Surveys, 2020

Zichen Zhang, Jayson Boubin, Christopher Stewart and Sami Khanal, Whole-Field Reinforcement Learning: A Fully Autonomous Aerial Scouting Method for Precision Agriculture, MPDI Sensors 20 (22), 6585, 2020

Jayson Boubin, Naveen Babu, Christopher Stewart, John Chumley and Shiqi Zhang, "Managing Edge Resources for Fully Autonomous Aerial Systems" In: ACM Symposium on Edge Computing, 2019

Naveen Babu and Christopher Stewart, "Revisiting Online Scheduling for AI-Driven Internet of Things" In: ACM Symposium on Edge Computing (Poster Session), 2019

Eduardo Romero, Christopher Stewart and Nathaniel Morris, "Fast Inference Services for Alternative Deep Learning Structures" In: ACM Symposium on Edge Computing (Poster Session), 2019

Naveen Babu and Christopher Stewart, "Energy, Latency and Staleness Tradeoffs in AI-Driven IoT" In:

Workshop on Hot Topics in the Web of Things, 2019

ME Rodgers, E Franz, A Chalker, DE Hudak, C Stewart and R Machiraju, "Data Commons to Support University-Wide Cross Discipline Research" In: Proceedings of the Practice and Experience in Advanced Research Computing on Rise of the Machines (learning), 2019

Christopher Stewart, "Continuous Adaptive Runtime Integration Testbed for Complex and Autonomous Systems" In: IEEE National Aerospace and Electronics Conference, 2019

Shiqi Zhang and Christopher Stewart, "Computational Thinking Curriculum for Unmanned Aerial Systems" In: IEEE National Aerospace and Electronics Conference, 2019

Jianru Ding, Ruiqi Cao, Indrajeet Saravanan, Nathaniel Morris and Christopher Stewart, "Characterizing Service Level Objectives for Cloud Services: Realities and Myths" In: IEEE International Conference on Autonomic Computing, 2019

Jayson Boubin and John Chumley and Christopher Stewart and Sami Khanal, "Autonomic Computing Challenges in Fully Autonomous Precision Agriculture" In: IEEE International Conference on Autonomic Computing, 2019

Chariot-towards a continuous high-level adaptive runtime integration testbed CM Barnes, K Bellman, J Botev, A Diaconescu, L Esterle, C Gruhl, ... 2019 IEEE 4th International Workshops on Foundations and Applications o

Zichen Xu, Christopher Stewart and Jiacheng Huang, "Elastic, geo-distributed RAFT" In: ACM International Symposium on Quality of Service, 2019

Jaimie Kelley and Nathaniel Morris, "Rapid In-situ Profiling of Colocated Workloads" In: IEEE Workshop on Data Center Performance, 2019

Zichen Xu, Christopher Stewart and Jiacheng Huang, "RAFTing Over on Geo-Diverse Spot Markets" In: IEEE Workshop on Data Center Performance, 2019

Venkata Mandadapu and Christopher Stewart, "Using Game Theory to Manage Self-Aware Unmanned Aerial Systems" In: IEEE International Workshops on Foundations and Applications of Self\* Systems, 2018

Nathaniel Morris and Christopher Stewart and Lydia Chen and Robert Birke and Jaimie Kelley," Model-driven Computational Sprinting" In: ACM European Conference on Computer Systems, 2018

Jayson Boubin and Shiqi Zhang and Venkata Mandadapu and Christopher Stewart, "Characterizing Computational Workloads in UAV Applications" In: IEEE Internet-of-Things Design and Implementation, 2018

Rashmi Rao and Christopher Stewart and Arnuflo Perez and Siva Renganathan, "Assessing Learning Behavior and Cognitive Bias from Web Logs" In: IEEE Frontiers in Education 2018

Siva Meenakshi Renganathan and Christopher Stewart and Arnulfo Perez and Rashmi Rao and Bailey Braaten. "Preliminary Results on an Interactive Learning Tool for Early Algebra Education" In:IEEE Frontiers in Education (FIE), 2017

Nathaniel Morris and Christopher Stewart and Robert Birke and Lydia Chen, "Early Work on Modeling Computational Sprinting" In: Poster Session at Symposium on Cloud Computing (SOCC), 2017

Aniket Chakrabarti and Srinivasan Parthasarathy and Christopher Stewart. "A Pareto Framework for Data Analytics on Heterogeneous Systems: Implications for Green Energy Usage and Performance" In: International Conference on Parallel Processing (ICPP), 2017

Jaimie Kelley and Christopher Stewart and Nathaniel Morris and Devesh Tiwari and Yuxiong He and Sameh Elnikety. "Obtaining and Managing Answer Quality for Online Data-Intensive Services" In ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS), 2017

Nathaniel Morris and Siva Meenakshi Renganathan and Christopher Stewart and Robert Birke and Lydia Chen. "Sprint Ability: How Well Does Your Software Exploit Bursts in Processing Capacity?" In: International Conference on Autonomic Computing (ICAC), 2016

Jaimie Kelley and Christopher Stewart and Devesh Tiwari and Saurabh Gupta. "Adaptive Power Profiling for Many-Core HPC Architectures" In: International Conference on Autonomic Computing (ICAC), 2016

Aniket Chakrabarti and Christopher Stewart and Srini Parthasarathy. "Green- and Heterogeneity-Aware Partitioning for Data Analytics" In: International Workshop on Green and Sustainable Networking and Computing, 2016

Zichen Xu and Christopher Stewart and Nan Deng and Xiaorui Wang. "Blending On-Demand and Spot Instances to Lower Costs for In-Memory Storage" In: IEEE International Conference on Computer Communications (INFOCOM), 2016 Winner Best-In-Session Presentation

Nan Deng, Zichen Xu, Christopher Stewart and Xiaorui Wang. "Tell-Tale Tails: Decomposing Response Times for Live Internet Services" In: IEEE International Green and Sustainable Computing Conference (IGSC), 2015

Christopher Stewart and Jing Li. "Power-Utilization Provisioning for Data Centers" In: IEEE International Green and Sustainable Computing Conference (IGSC), 2015

Jamie Kelley and Christopher Stewart and Devesh Tiwari and Yuxiong He and Sameh Elnikey and Nathaniel Morris. "Measuring and Managing Answer Quality for Online Data-Intensive Services" In: International Conference on Autonomic Computing., 2015

Zichen Xu and Nan Deng and Christopher Stewart and Xiaorui Wang. "CADRE: Carbon-Aware Data Replication for Geo-Diverse Services" In: International Conference on Autonomic Computing, 2015

Christopher Stewart and Jaimie Kelley. "Tortoises and Hares Among Online Data-Intensive Queries" In: Wild and Crazy Ideas of ASPLOS (WACI). (2015): 1-2. (Published), 2014

Nan Deng and Zichen Xu and Christopher Stewart and Xiaorui Wang. "From the Outside Looking In: Probing Web APIs to Build Detailed Workload Profiles" In: USENIX Workshop on Feedback Computing, 2014

Sundeep Kambhampati, Jaimie Kelley, William C.L. Stewart, Christopher Stewart, and Rajiv Ramnath. "Managing Tiny Tasks for Data-Parallel, Subsampling Workloads" In: IEEE Conference on Cloud Engineering, 2013

Jaimie Kelley, Christopher Stewart, Sameh Elnikety, and Yuxiong He. "Cache Provisioning for Interactive NLP Services" In: ACM Workshop on Large and Distributed Systems (LADIS), 2013

Jaimie Kelley and Christopher Stewart. "Balanced and Predictable Networked Storage" In: Workshop on Data Center Performance, 2013

Christopher Stewart, Aniket Chakrabarti, and Rean Griffith. "Zoolander: Efficiently Meeting Very Strict, Low-Latency SLOs" In: USENIX International Conference on Autonomic Computing, 2013

Nan Deng, Chen Li, Christopher Stewart, and Xiaorui Wang. "MantisMail: Green Content Delivery for

Email" In: Poster Session of USENIX Conference on Networked Systems Design and Implementation (NSDI), 2012

Aniket Chakrabarti and Christopher Stewart. "Zoolander: efficient latency management in NoSQL stores" In: Proceedings of the Posters and Demo Track for Middleware, 2012

Jaimie Kelley and Christopher Stewart. "Graduated Locality-Aware Scheduling for Search Engines" In: Proceedings of the Posters and Demo Track for Middleware, 2012

Nan Deng, Christopher Stewart, Jaimie Kelley, Daniel Gmach and Martin Arlitt. "Adaptive Green Hosting" In: International Conference on Autonomic Computing, 2012

Nan Deng, Christopher Stewart, Daniel Gmach, and Martin Arlitt. "Policy and Mechanism for Carbon-Aware Cloud Applications" In: IEEE Network Operations and Management Symposium, 2011

Christopher Stewart and Jing Li. "Power Provisioning for Diverse Datacenter Workloads" In: Workshop on Energy-Efficient Design (WEED), 2011

Nan Deng, Christopher Stewart, and Jing Li. "Concentrating Renewable Energy in Grid-Tied Datacenters" In: IEEE Symposium on Sustainable Systems Technology, 2011 Awarded 3<sup>rd</sup> Best Paper out of more than 140 submissions

Christopher Stewart, Kai Shen, Arun Iyengar, and Jian Yin. "EntomoModel: Understanding and Avoiding Performance Anomaly Manifestations" In: Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS), 2010 Awarded Best Paper.

Christopher Stewart and Kai Shen. "Some Joules Are More Precious Than Others: Managing Renewable Energy in the Datacenter" In: Workshop on Power Aware Computing and Systems, 2009

Kai Shen, Christopher Stewart, Chuanpeng Li, and Xin Li. "Reference-Driven Performance Anomaly Identification" In: International Conference on Measurement and Modeling of Computer Systems, 2009

Christopher Stewart and Kai Shen. "Configuration-Space Performance Anomaly Depiction" In: Workshop on Large Scale Distributed Systems and Middleware, 2008

Christopher Stewart, Matthew Leventi, and Kai Shen. "Empirical Examination of A Collaborative Web Application" In: IEEE International Symposium on Workload Characterization, 2008

Robbert van Renesse, Rodrigo Rodrigues, Mike Spreitzer, Christopher Stewart, Doug Terry, and Franco Travostino. "Challenges Facing Tomorrow's Datacenter: Summary of the LADIS Workshop" In: Workshop on Large Scale Distributed Systems and Middleware, 2008

Terence Kelly, Kai Shen, Alex Zhang, and Christopher Stewart. "Operational Analysis of Parallel Servers" In: Modeling, Analysis, and Simulation of Computer and Telecommunication Systems. Baltimore, MD, United States, 2008

Christopher Stewart, Terence Kelly, Alex Zhang, and Kai Shen. "A Dollar From 15 Cents: Cross-Platform Management for Internet Services" In: USENIX Annual Technical Conference, 2008

Kai Shen, Alex Zhang, Terence Kelly, Christopher Stewart. "Operational Analysis of Processor Speed Scaling" In: Symposium on Parallelism in Algorithms and Architectures, 2008

Kai Shen, Ming Zhong, Sandhya Dwarkadas, Chuanpeng Li, Christopher Stewart, and Xiao Zhang. "Hardware Counter Driven On-the-Fly Request Signatures" In: Conference on Architectural Support for Programming Languages and Operating Systems, 2008

Zhikui Wang, Xue Liu, Alex Zhang, Christopher Stewart, Xiaoyun Zhu, and Terence Kelly. "AutoParam: Automated Control of Application-Level Performance in Virtualized Server Environments" In: Feedback Control Implementation and Design in Computing Systems and Networks, 2007

Christopher Stewart, Terence Kelly, and Alex Zhang. "Exploiting Nonstationarity For Performance Prediction" In: European Conference on Computer Systems, 2007

Peter Derosa, Kai Shen, Christopher Stewart, and Jonathon Pearson. "Realism and Simplicity: Disk Simulation for Instructional OS Performance Evaluation" In: Technical Symposium on Computer Science Education, 2006

Mick Jordan and Christopher Stewart. "Adaptive Middleware for Component-Level Deployment" In: Workshop on Adaptive and Reflective Middleware, 2005

Christopher Stewart and Kai Shen. "Performance Modeling and System Management for Multi-component Online Services" In: Symposium on Networked Systems Design and Implementation, 2005

Christopher Stewart, Kai Shen, Sandhya Dwarkadas, Michael L. Scott, and Jian Yin. "Profile-driven Component Placement for Cluster-based Online Services" In: Work In Progress at International Middleware Conference, 2004

### Select Journal Papers

Chistopher Stewart and Vishakha Gupta, "The 2013 Workshop on Diversity in Systems Research". ACM SIGOPS Operating System Review. (In Press), 2013

David Chiu, Christopher Stewart, and Bart McManus, "Electric Load Balancing through Low-Cost Workload Migration". ACM SIGMETRICS Performance Evaluation Review. Vol. 40, no. 3: 6. 2012. (Published)

Kai Shen, Ming Zhong, Sandhya Dwarkadas, Chuanpeng Li, Christopher Stewart, and Xiao Zhang, "Hardware counter driven on-the-fly request signatures". ACM SIGOPS Operating System Review. Vol. 42, 2008

Christopher Stewart, Terence Kelly, Alex Zhang, "Exploiting nonstationarity for performance prediction". ACM SIGOPS Operating System Review. Vol. 41, no. 3: 31-44. 2007. (also in Eurosys 2007)

#### **Patents**

- 1. Kelly, Terence P., Alex X. Zhang, and Christopher C. Stewart. "Determining performance of 2010 an application based on transactions." U.S. Patent No. 7,720,955. 18
- 2. Wang, Zhikui, Xue Liu, Alex Zhang, Christopher Stewart, Xiaoyun Zhu, Terence Kelly, and Sharad Singhal. "Dynamically resizing a virtual machine container." U.S. Patent 8,566,835
- 3. Kelly, Terence, Alex Zhang, and Christopher Stewart. "Application performance analysis 2014 for a multiple processor queuing station." U.S. Patent 8,798,960

#### **Honors and Awards**

| CSE Department Award for Outstanding Teaching, Recognizes faculty, staff, and students for | 2019 |
|--------------------------------------------------------------------------------------------|------|
| noteworthy accomplishments "above and beyond" expectations by peer vote                    |      |

**Central Ohio Tech Power Players Award (1 of 3 finalists),** Recognizes early-career leaders that impacting technology development and education in central Ohio

| <b>Tau Beta Pi Eminent Engineer,</b> Achieved senior level distinction in advance of his or her peers for distinguished scholarship and exemplary character | 2019 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>ACM-W Student Chapter Excellence Award,</b> Recognizes ACM-W chapters worldwide that display considerable initiative"] (I am the ACM-W advisor)          | 2017 |
| Best-In-Session Award, International Conference on Computer Communications (INFOCOM)                                                                        | 2016 |
| RevisionPath.com Honoree recognized as a leading African American in web technology                                                                         | 2014 |
| <b>CAREER Award, National Science Foundation</b> most prestigious award in support of junior faculty                                                        | 2014 |
| <b>3</b> <sup>rd</sup> <b>Best Paper</b> , IEEE International Symposium on Sustainable Systems Technology (ISSST)                                           | 2011 |
| <b>Best Paper</b> , IEEE Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS)                                 | 2010 |

## **Research Funding**

IIS:EAGER:Benchmarks for Autonomous Unmanned Aerial Vehicles in Agriculture Applications. National Science Foundation. (\$224, 993, Total Award)

PI: Christopher Stewart (no co-PIs)

CNS:Travel Support for the 2017 International Conference on Autonomic Computing. National Science Foundation. (\$15,000, Total Award)

PI: Christopher Stewart (no co-PIs)

II-EN: Collaborative Research: Enhancing the Parasol Experimental Testbed for Sustainable Computing. National Science Foundation. (\$13,797, OSU Portion of \$1M)

PI: Thu Nguyen (Rutgers), Lead-PI from OSU: Christopher Stewart

Assessing the Impact of Computer Modeling and Programing in Secondary Algebra. National Science Foundation. (\$1,201,385, Total Award)

PI: Arnuflo Perez, co-PI: Christopher Stewart and Kathy Malone

CAREER: Carbon Footprint Modeling and Elastic Caching for Greening Services. National Science Foundation. (\$501,930, Total Award)

PI: Christopher Stewart (no co-PIs)

CSR: SHF: SMALL: Efficient, Low-Latency Networked Storage. National Science Foundation. (\$488,756, Total Award)

PI: Christopher Stewart (no co-PIs)

EAGER: Design and Implementation of a Renewable Adaptive Cluster. National Science Foundation. ( \$200,000, Total Award )

PI: Christopher Stewart (no co-PIs)

Amazon Web Services Equipment Grant. Amazon. (\$2,000, Total Award) Research Grant PI: Christopher Stewart

Microsoft Support for The Workshop on Diversity in Systems Research. Microsoft Corporation. (\$3,000, Total Award)

PI: Christopher Stewart and Vishakha Gupta

Travel Support for The 6th Workshop on Diversity in Systems Research (Diversity '13). National Science Foundation. (\$4,000, Total Award)

PI: Christopher Stewart

NCWIT ASPIRE Grant. National Center for Women & Information Technology. (\$5,000, Total Award) PI: Christopher Stewart and David Herman

## **Professional Service**

Conference and Workshop Organization
ACM Middleware, Finance Chair 2017
ACM OCWIC Academic Sponsorship Co-Chair 2018
IEEE ICAC Program Committee Chair 2017
ACM TAPIA Conference Poster Session Chair 2016, 2017
ACM OCWIC Financial Co-Chair 2017
USENIX ICAC/ATC Poster Session 2014
ACM Workshop on Diversity in Systems Research 2013

#### Program Committees

IEEE ICAC 2017, USENIX ATC 2017, IEEE ICDCS 2017, ACM ASPLOS 2015, IEEE ICAC 2015, IEEE IC2E 2015, IEEE CAC 2015, USENIX ATC 2014, IEEE/USENIX ICAC 2014, ACM SIGMETRICS 2014, ACM Greenmetrics 2013, IWQoS 2013, USENIX ICAC 2013, ACM Sigmetrics 2013, ACM Greenmetrics, ACM SIGMETRICS, ACM GreenMetrics 2011, Data Center Performance (DCPerf) 2010, IEEE/IFIP Dependable Systems and Networks (DSN) 2010, ACM GreenMetrics 2010, International Conference on Parallel Processing (ICPP) 2010, Dependable Systems and Networks (DSN) 2009, USENIX HotDep 2009

## **Student Advising**

PhD Alumni

Jaimie Kelley, 2017. First Employment: Tenure-Track Faculty at Denison University

Aniket Chakrabarti, 2017. (co-advised with Srini Parthasarathy). First Employment: Research Scientist at Microsoft

Zichen Xu, 2016. First employment: Tenure-Track Nanchang University

Nan Deng, 2015. First employment: Google

PhD Students

Nathaniel Morris. The Ohio State University

Jayson Boubin. The Ohio State University

Naveen Tukmur Ramesh Babu, The Ohio State University

Zichen Zhang, The Ohio State University

Eduardo Romero Gainza, The Ohio State University

#### **Graduated Masters Students**

Indrajeet Saravanan, Thesis: "Exploring Computational Sprinting in New Domains." The Ohio State University. Graduate 2019. First Employment: Amazon

Manjukumar Patil, Interactive STEM Curriculum: Technological Tools and Programming Interface. The Ohio State University. Graduated 2019. First Employment: Amazon

Venkata Mandadapu, Using Game Theory to Manage Self-Aware Unmanned Aerial Systems. The Ohio State University. Graduated 2018. First Employment: Expedia

Rashmi Rao. Thesis: "Modeling learning behaviour and cognitive bias from web logs" The Ohio State University. Graduated 2017. First Employment: Google

Siva Meenakshi Renganathan. Thesis: "An Interactive Learning Tool for EarlyAlgebra Education: Design, Implementation and Evaluation." The Ohio State University. Graduated 2017. First Employment: Apple

Puja Gupta. Thesis: "Characterization of Performance Anomalies in Hadoop." The Ohio State University. Graduated 2015. First Employment: Qualcomm

Jianwei Tu. An Implementation of RepFlow in Thrift. The Ohio State University. Graduated 2014. First Employments: Amazon

Sundeep Kambhampati. Thesis: "Managing Tiny Tasks in Data-Parallel Subsampling Workloads.' The Ohio State University, Columbus, Ohio . Graduated: 2014. First Employments: CICSCO

Umang Vipal. Graph Benchmarks for Systems Research. The Ohio State University. Graduated:2014. First Employments: A2Z, Inc.

Chen Li. GreenMail: Reducing Email Service's Carbon Emission with Minimum Cost. The Ohio State University, Columbus, Ohio . Graduated:2013. First Employments: Erricson

Daiyi Yang. Zoolander: A Key Value Store Providing High SLA. The Ohio State University. Graduated:2011. First Employments: StumbleUpon.com Developer.

Jing Li. Power Provisioning for Diverse Datacenter Workloads,. The Ohio State University. Graduated: 2011. First Employments: MLB.com Developer.

### Undergraduate Students

Stephanie Muhammad, The Ohio State University. Graduated: 2016 First Employments: Exact Software

Xiaoran Hu. The Ohio State University. Graduated: 2014 First Employments: Graduate Student at University of Souther California

Alexander Bunch. Thesis: "Caching for Sustainability". The Ohio State University. Graduated:2012. First Employments: Graduate Student at Carnegie Mellon University.

## **Teaching**

| Date        | Course                                     | Enroll-<br>ment | Student Evaluation   |
|-------------|--------------------------------------------|-----------------|----------------------|
| Fall 2020   | 3244 Data Management in the Cloud          | 35              | Overall SEI: 4.1/5.0 |
| Spring 2020 | 3244 Data Management in the Cloud          | 60              | Overall SEI: 3.8/5.0 |
| Fall 2019   | 3244 Data Management in the Cloud          | 40              | Overall SEI: 4.5/5.0 |
| Fall 2018   | 3244 Data Management in the Cloud          | 19              | Overall SEI: 4.4/5.0 |
| Fall 2017   | 3421 Introduction to Computer Architecture | 37              | Overall SEI: 4.7/5.0 |
| Fall 2017   | 5429 Autonomous IoT at the Edge            | 16              | Overall SEI: 4.7/5.0 |
| Spring 2017 | 3244 (4194) Data Management in the Cloud   | 19              | Overall SEI: 2.9/5.0 |

| Date        | Course                                                | Enroll-<br>ment | Student Evaluation     |
|-------------|-------------------------------------------------------|-----------------|------------------------|
| Spring 2016 | 3421 Introduction to Computer Architecture            | 36              | Overall SEI: 4.6/5.0   |
| Spring 2016 | 6421 Graduate Computer Architecture                   | 26              | Overall SEI: 4.1/5.0   |
| Fall 2015   | 6421 Graduate Computer Architecture                   | 24              | Overall SEI: 3.8/5.0   |
| Spring 2015 | 3421 Introduction to Computer Architecture (3.00)     | 40              | Overall SEI: 4.6 / 5.0 |
| Fall 2014   | 3421 Introduction to Computer Architecture (3.00)     | 40              | Overall SEI: 4.6 / 5.0 |
| Spring 2013 | 3421 Introduction to Computer Architecture (3.00)     | 39              | Overall SEI: 4.7 / 5.0 |
| Fall 2012   | 3421 Introduction to Computer Architecture (3.00)     | 39              | Overall SEI: 4.9 / 5.0 |
| Spring 2012 | 775 Computer Architecture (3)                         | 32              | Overall SEI: 4.2 / 5.0 |
| Fall 2011   | 775 Computer Architecture (3.00)                      | 32              | Overall SEI: 2.8 / 5.0 |
| Winter 2011 | 675.01 Intro Computr Arch (3)                         | 46              | Overall SEI: 4.5 / 5.0 |
| Winter 2011 | 675.01 Intro Computr Arch (3)                         | 47              | Overall SEI: 4.3 / 5.0 |
| Fall 2010   | 788.11 Int St-Prl&Dist Cm (5)                         | 10              | Overall SEI: 4.8 / 5.0 |
| Spring 2010 | 788.11 Int St-Prl&Dist: Making and Managing<br>Clouds | 17              | Overall SEI:4.6 / 5.0  |
| Spring 2010 | 675.01 Intro Computr Arch (3)                         | 40              | Overall SEI: 4.0 / 5.0 |
| Fall 2009   | 675.01 Intro Computr Arch (3)                         | 39              | Overall SEI: 3.8 / 5.0 |

# Department and University Service

| Faculty Mentor for ACM-W                                           |
|--------------------------------------------------------------------|
| Diversity and Outreach Chair, Faculty Coordinator                  |
| Computer Committee, Faculty Member                                 |
| Systems Group Meetings, Faculty Coordinator                        |
| Graduate Admissions Committee, Member                              |
| Chair Search Committee Member                                      |
| Search Committee Member for Translational Data Analytics Institute |
|                                                                    |