

Allen Yang

PH.D CANDIDATE · UNIVERSITY OF MASSACHUSETTS, BOSTON

Boston, MA

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Research Interests

Federated/Machine learning, edge computing, mobile computing, security, computer networks, cloud computing, and storage systems

Education

University of Massachusetts, Boston

PH.D IN COMPUTER SCIENCE

Cumulative GPA: 3.83

Boston, Massachusetts

Sept. 2021 - Present

Montclair State University

B.S. IN COMPUTER SCIENCE

Montclair, New Jersey

Sept. 2017 - May 2021

Research Experience

University of Massachusetts - Boston

GRADUATE RESEARCH ASSISTANT - RDMA NETWORKS IN DISAGGREGATED STORAGE SYSTEMS - SAMSUNG RESEARCH GROUP

- Perform algorithmic analysis on existing networking simulators to improve efficiency
- Develop novel dynamic sending rate algorithms in disaggregated storage systems
- Implement changes to existing congesting control schemes to enhance performance
- Conduct research directly on Remote Data Memory Access(RDMA) systems using novel mechanisms
- Present monthly reports to members at Samsung on research findings

Boston, Massachusetts

Sept. 2021 - Present

Montclair State University

RESEARCH ASSISTANT - INTRUSION DETECTION AND DATA COLLECTION METHODS

- Investigated imbalanced classification in deep neural networks for network intrusion detection
- Created scripts using Python and Twitter Development API to search and gather user data on Twitter
- Fabricated Python programs using modules such as JSON, Pandas, and Matplotlib to effectively organize and present information

Montclair, New Jersey

Nov. 2019 - Aug. 2021

Professional Experience

W@tchTower

SOC ANALYST

- Conducted proactive monitoring, investigation, and mitigation of security incidents.
- Recognized potential, successful, and unsuccessful intrusion attempts and compromises through reviews and analyses of relevant event detail and summary information.
- Investigated malicious domains and IPs using Open Source tools and recommended proper blocking based on analysis.
- Conducted log analysis using Splunk

McLean, Virginia

May 2022 - Sept. 2022

St. Joseph's Health Medical Center

INFORMATION TECHNOLOGY CONSULTANT

- Provide on-site IT support to hospital administration
- Installed hardware and software for clients
- Held direct supervision and led a group of 5 summer intern contract workers
- Delegated day-to-day tasks assigned by management

Woodland Park, New Jersey

Sept. 2017 - Aug. 2021

Publications

DIRS: Dynamic Initial Rate Setting in Congestion Control for Disaggregated Storage Systems

Xiaoqian Zhang, Allen Yang, Danlin Jia, Li Wang, Mahsa Bayati, Pradeep Subedi, Xuebin Yao, Bo Sheng, and Ningfang Mi

2023 International Conference on Computing, Networking and Communications (ICNC), 2023, Honolulu HI

Optimizing Internal Overlaps by Self-Adjusting Resource Allocation in Multi-Stage Computing Systems

Allen Yang, Jiayin Wang, Ying Mao, Yi Yao, Ningfang Mi, and Bo Sheng

IEEE Access, 2021 Vol. 9, pp. 88805-88819

DeepICU: Imbalanced Classification by Using Deep Neural Networks for Network Intrusion Detection

Allen Yang, Boxiang Dong, Dawei Li, Weifeng Sun, and Bharath K. Samanthula

International Journal of Big Data Intelligence, 2020, Vol. 7 No.3, pp.137-147

Teaching Experience

CS444- Operating Systems

Boston, MA

UNIVERSITY OF MASSACHUSETTS - BOSTON, TEACHING ASSISTANT FALL 2022

ENGIN 448 - Operating Systems

Boston, MA

UNIVERSITY OF MASSACHUSETTS - BOSTON, TEACHING ASSISTANT FALL 2023

Skills

Programming: Java, Python, C++, C, JavaScript, ReactJS, LaTeX

Machine Learning Tools: TensorFlow, PyTorch, Scikit-Learn

Simulators: NS3, QSim

Languages: English, Mandarin Chinese