

Marshall Clyburn

✉ mardev2013@gmail.com 🌐 mardev.net in marshall-d-clyburn 📧 mdclyburn

Education

- Ph.D., Computer Science (in progress)** Aug. 2020 – now
University of Virginia
- Thesis: *Software Pursuing a Long-Lived Internet of Things*
 - Research: low-power embedded systems, operating systems, IoT systems software.
- B.S., Computer Science, Magna Cum Laude** Aug. 2013 – Dec. 2016
Clemson University

Experience

- Visiting Researcher** Aug. 2023 – Oct. 2023
Munster Technological University
Cork, Ireland
- Designed and evaluated homogeneous edge network systems for waste classification.
 - Constructed DNNs for waste object detection and classification.
- Senior Software Engineer** Feb. 2017 – Aug. 2020
Blackbaud Inc.
Charleston, SC, US
- Developed infrastructure orchestration software to manage servers hosting CRM and accounting software.
 - Developed infrastructure monitoring and response tools for microservices in Azure and colocation datacenters.
- Software Engineer Intern** May 2016 – Aug. 2016
Blackbaud Inc.
Charleston, SC, US
- Improved Enterprise CRM SDK installer by fixing bugs causing incomplete installs and uninstalls.
 - Developed unit and integration tests for the Enterprise CRM product.
- Undergraduate Research Assistant** Sep. 2013 – Dec. 2016
Clemson Environmental Information Sciences Lab
Clemson, SC, US
- Developed custom ArduRover-based boat drone.
 - Developed scripts to collect and process data from deployed drones and environmental sensors.
 - Administered lab group servers running Windows, Linux, and *BSD.

Publications

- fReeLoaders: Real-Time, Deadline-Driven Task Scheduling for IoT Ecosystems** SEC 2025
Marshall Clyburn*, Nabeel Nasir*, Md. Fazlay Rabbi Masum Billah,
Victor Ariel Leal Sobral, Jiechao Gao, Fateme Nikseresht, Brad Campbell
- System-wide Batch Peripheral Scheduling in Multi-tenant Embedded Systems** EWSN 2025
Marshall Clyburn, Victor Cionca, Brad Campbell
- HackWrt: Network Traffic-based Eavesdropping of Handwriting** SafeThings 2023
Aaron Kinfe, Chijung Jung, Kai Lin, Marshall Clyburn, Fnu Suya
- Energy Harvesting Systems Need an Operating System, Too** ENSSys 2020
Samyukta Venkat, Marshall Clyburn, Brad Campbell

Teaching

- Engineering Mentor Volunteer** Jan. 2025 - now
Charlottesville High School
Providing technical and logistical guidance to students building accessibility tools for disabled youth.
- Graduate Teaching Assistant** Aug. 2022 – May 2024
University of Virginia
- **CS 4414 Operating Systems:** led weekly supplemental lectures, hosted office hours, designed exams.
 - **CS 4501 Wireless for the IoT:** administered labs, hosted office hours, advised final project designs.

Service

UVA CS GradX Committee <i>Graduate Student Representative</i>	Sep. 2025 – now
UVA CS Graduate Student Group <i>Leadership Chair</i>	Dec. 2024 – now
Representative group for UVA CS graduate students. As leadership chair:	
◦ Planning annual department research symposium. ◦ Promoting CSGSG-hosted graduate student events.	
Clemson Association for Computing Machinery <i>President</i>	Jan. 2016 – Dec. 2016
◦ Planned professional development and social events. ◦ Presented seminars on computing, Linux, and common *NIX tools. ◦ Developed and co-led the <i>Clemson ACM Technology and Tools Seminar</i> course (Fall 2016).	

Awards

EWSN 2025 Best Paper Award <i>EWSN 2025 Distinguished Technical Program Committee</i>	Sep. 2025
Outstanding Graduate Teaching Award <i>University of Virginia, Department of Computer Science</i>	May 2023
National Research Traineeship <i>National Science Foundation</i>	Aug. 2020
Dean's Scholar Fellowship <i>University of Virginia</i>	Aug. 2020
Computer Science Scholar Fellowship <i>University of Virginia, Department of Computer Science</i>	Aug. 2020

Affiliations

Association for Computing Machinery	May 2015 – now
UVA Mentoring Institute	Jul. 2020 – Oct. 2024
Clemson Association for Computing Machinery	Aug. 2014 – Dec. 2016
Clemson Programming Team	Nov. 2014 – Dec. 2016
Clemson Cyber Defense	Feb. 2015 – Dec. 2016