

Robert “Trey” West

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Education

University of Virginia – Charlottesville, VA August 2020
Master’s in Computer Engineering

Virginia Commonwealth University – Richmond, VA May 2018
Bachelor of Science in Computer Engineering
Bachelor of Science in Mathematics

Technical Skills

Languages: Python, C/C++, Java, HTML, CSS, SQL

Tools/Clouds: Git/GitHub, AWS, LaTeX

Operating Systems: Linux, Windows

Experience

Graduate Research Assistant in HPLP Lab at University of Virginia August 2018 - Present

- Implemented data processing and heat map visualization tools in Python
- Added functionality to HotSpot thermal simulation software to support next-generation cooling techniques
- Changed differential equations solver to drastically reduce computation time
- Ran Hopscotch memory benchmarks using FireSim simulator in AWS
- Published papers in TECHCON 2020 and GOMACTech 2021

Teacher’s Assistant at University of Virginia August 2019 - Present

- Received Outstanding TA award from Computer Science department for creating and leading Discussion Sections that gave students extra time to discuss course material
- Was selected as sole graduate TA for UVA’s first offering of Data Structures and Algorithms 2
- Answered questions and supplied additional instruction for students during weekly office hours, discussion sections, recitations, and by-appointment meetings for 4 total classes

Intern with The Boeing Company May 2017-August 2017

- Added data capture feature suite to C++ server and Python client to improve network communication with an FPGA
- Improved test coverage for 2 models

Projects and Research

University Transportation Service Routing Software (Python)

- Created software to find and display fastest route in real time between locations on UVA’s grounds using the bus system
- Software interfaces to TransLoc and UVA APIs, as well as several APIs in Google Cloud

Rapid Photonic Innovation Devices (C, Python)

- Co-developed laser lithography prototyping device to make prototyping cheaper and easier

Miscellaneous

- Developed ML model to detect malware from sequences of API calls (Python)
- Co-developed gaming Android app *Pregel*, which asked users to find Hamiltonian paths through graphs (Java)
- Installed Arch Linux on FPGA soft core and used DAC to play music over speaker
- Designed and constructed 12kV Tesla Coil as Independent Research Project