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

Programming Languages: Python, C/C++, Java, HTML, CSS, VHDL
Software: Git, LaTex, Cadence and Synopsys EDA Tools, Vivado, Modelsim
Operating Systems: Linux, Windows

Experience

Teacher’s Assistant in CS Department at University of Virginia *August 2019 - Present*
- Received Outstanding TA award from Computer Science department for creating and leading weekly Discussion Sections
- Served as sole graduate TA for UVA’s first offering of Data Structures and Algorithms
- Assistant for Computer Architecture, Data Structures and Algorithms

Intern with The Boeing Company *May 2017-August 2017*
- Added data capture feature suite to C++ server and Python client to improve communication with an FPGA system
- Improved VHDL testbench coverage for 2 models
- Integrated experimental building process into workflow to show its viability

Teacher’s Assistant in ECE Department at Virginia Commonwealth University *May 2016-May 2018*
- Assistant for Signals and Systems, Microcomputer Systems, and Digital Systems courses

Projects and Research

HotSpot Thermal Modeling Software (C)
- Added support for simulation of microfluidic cooling in 3D Integrated Circuits
- Updated differential equations solver to support this new functionality
- Implemented accompanying heat map visualization tool in Python
- Simplified user interface and updated documentation
- Migrated project to GitHub
- Published two accompanying papers in TECHCON 2020 and GOMACTech 2021

University Transportation Service Routing Software (Python)
- Created software to allow students to find fastest route to their destination using UVA’s bus system (UTS)
- Interfaced to TransLoc, UVA, and several Google APIs

Rapid Photonic Innovation Devices (RaPID)
- Co-developed laser lithography prototyping device using Blu-ray drive

Miscellaneous
- Developed Decision Tree Classifier to detect malware from sequences of system calls
- Co-developed puzzle app *Pregel*