

# Robert “Trey” West

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## Education

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<b>University of Virginia</b> – Charlottesville, VA	August 2020
Master’s in Computer Engineering	
<b>Virginia Commonwealth University</b> – Richmond, VA	May 2018
Bachelor of Science in Computer Engineering	
Bachelor of Science in Mathematics	

## Technical Skills

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

## Experience

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- 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

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- 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*