Hongkun Wu
12630 Veirs Mill Rd Apt 812, Rockville MD 20853 | 301-221-3901 | hwu2@umbc.edu

EDUCATION

University of Maryland, Baltimore County, MD August 2018
B.S., Computer Engineering
Honors: Delegate Jeff Waldstreicher Scholarship, AFCEA CMD Scholarship

Montgomery College, Rockville, MD May 2014
A.S, Electrical Engineering

TECHNICAL SKILLS

Hardware: FPGA, Analog/Digital Circuits, Analog/Digital Oscilloscopes, Elvis Board, PC Building
Operating Systems: Windows 10/7/XP, Fedora, Debian, Ubuntu, KaliLinux, Vagrant
Programming: C, C++, Java, Python, MySQL, Postgres, HTML, CSS, JavaScript, VHDL
Tools: MS Office, Eclipse, STS, VMware, VirtualBox, Bootstrap, Node JS, jQuery, AJAX, npm(express, EJS, body-parser, passport, OAuth...), JDBC, Git, NoSQL, Putty, MatLab, CREO, Cadence, MATLAB
Additional Skills: Chinese Mandarin (fluent), Cantonese (Fluent), Engineering Technotes

RELEVANT COURSES

Systems Design and Programming	Signals and Systems Theory
Elements of Discrete Signal Analysis	Electronic Circuits
Computer Architecture	FPGA Arch.& Applications
C Programming and Embedded Systems	Data Structures
Principles of Operating Systems	Computer Networks

PROJECTS

Daily Web Blog – Web Development Project (Node.js) **April – May 2019**
- Developed a web application to store blogs (title, content) in MongoDB Atlas cloud
- Displayed each article on the homepage with a truncated segment and "Read More" Option
- Deployed on Heroku with git: https://safe-lowlands-57140.herokuapp.com/
- Inspired by my to-do List https://murmuring-thicket-56396.herokuapp.com/ with EJS templates

Donor MatchApp – Full-Stack Project (Java, JDBC, JSP, TomCat) ***February* - April 2019**
- Backend: developed functions (APIs) to interface with database system using JDBC
- Frontend: used Java and Tomcat in conjunction with HTML (JSP) to obtain donor/patient data
- Optimized 3-tier architecture with the use of prepared statement to execute Postgres queries

Software-Defined Radio Receiver/Transmitter (Team of 4 members) **January - May 2018**
- Designed BPSK, DSB-AM in Matlab code, with a carrier in a range of 100 kHz to 1 MHz
- Programmed design on Digilent Arty S7 50 using VHDL code compiled/synthesized in Vivado
- Produced analog and digital output for further analysis

Instruction Detection Systems – OS Semester Project **March - May 2018**
- Monitored a process by capturing system calls made by it and logging them in a kernel array
- Transferred kernel array to a user-space program for system call sequence detection
- Killed suspicious process with intrusion detection and maintained safe inter-process communication

RELEVANT WORK EXPERIENCE

UMBC, *Teaching Assistant,* Baltimore, MD **August – December 2018**
- Assisted students in building digital circuits and constructing Verilog code for analysis.
- Provided extensive explanations in theory for unclear lectures.
- Encouraged students and other TAs to use Elvis board for faster precise circuit analysis.

NORTH CAPITOL INC., *Computer Technician,* Washington, DC **May 2013 – August 2014**
- fixed, disconnected, reconnected, and installed computer components for office and cubical setups