Jason Zhang

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EDUCATION

Johns Hopkins University
Candidate for Bachelor of Science in Computer Engineering and Computer Science

Baltimore, MD
Expected May 2019

COURSEWORK

Machine Learning, Databases, Algorithms, Data Structures, Computer System Fundamentals, Digital System Fundamentals, Linear Algebra, Probability/Statistics, Fourier Analysis, Circuits

EXPERIENCE

Johns Hopkins Applied Physics Lab - Wireless Systems Group
Software Engineering Intern

Laurel, MD
Jun 2017 - Aug 2017

DARPA Spectrum Collaboration Challenge:
- Developed on the DARPA Colosseum competitor system, which is a one of a kind RF traffic emulator capable of simulating 65,000 channel interactions among 256 wireless devices.
- Designed/developed Python program for admins to oversee radio node reservations and configure them.
- Dockerized the website and radio nodes to reduce spatial usage and mitigate system downtime.

Fly-Away Broadcast System V3:
- Developed on a third version broadcasting system capable of modifying and broadcasting audio on multiple frequencies.
- Implemented logging and an admin interface for the AngularJS and Python Django web app to help capture possible malicious activity from any users of the system and view them with ease.
- Designed and deployed vulnerability checker daemon that checks for vulnerabilities in over 100,000 Python modules and over 400,000 node modules. Ensures most secure packages chosen for the code base.

HopHacks
Organizer/Web Developer

Baltimore, MD
Dec 2016 - Present

Hackathon Website:
- Organizes a 36 hour bi-annual hackathon at Johns Hopkins University
- Maintaining/Rebuilding website and registration system to support over 1,000 registrants from over 70 different universities. Written in ReactJS and MeteorJS, deployed on AWS EC2 with NGINX

Johns Hopkins University Institute for Bio-medical Sciences
Software Engineering Intern

Baltimore, MD
Jun 2016 - Aug 2016

Organ Purity Assay Device:
- Built a surgical assistance device that automatically runs assays to test organ purity.
- Programmed microcontrollers to run specific assay processes on user click from UI.
- Created web interface so that mobile devices on the same network can control the device.

University of Massachusetts Center for Comparative NeuroImaging
Research/Technical Intern

Worcester, MA
May 2014 and Nov 2014

Medical Imaging Visualization Analysis Software:
- Expedited image registration of brain fMRI scans using the MIVA software, to help identify abnormalities in brain structure.
- Helped develop the automatic registration feature to allow for less hassle in image registration

PROJECTS

FeedFin: Web app using MeteorJS, ReactJS, MongoDB that organizes your tasks based on your habits
Kayak Tracker: Attached a web cam and ardunio to a quadcopter to have it follow kayaker using openCV
Asteroids: Created astroids game using Java and Java swing library

SKILLS

Java, Python, C/C++, JavaScript, HTML/CSS, ReactJS, MeteorJS, NodeJS, git, Docker, AWS, NGINX, vagrant, MongoDB, SQL, Python Django, SciPy, MatLab, Android SDK, SolidWorks