US Citizen
randyrdeng@gmail.com

Randy Deng

randydeng.com
linkedin.com/in/randydeng

Education

Georgia Institute of Technology, Atlanta GA
Masters in Electrical and Computer Engineering, GPA: 3.5/4.0 *1/2018 - Present*
Bachelors in Computer Engineering, GPA: 3.84/4.00 *8/2015 - 12/2018*
Awards: Highest Honors, Faculty Honors, Deans List

Work Experience

Software Engineer Student Assistant at GTRI CIPHER *1/2018 - 5/2018, 8/2018 - 8/2019*
- Worked on Benign Agents Deployed for Automated Cyber Threat Representation (Bad ACTR), a software suite developed by GTRI that creates activity patterns resembling those exhibited by malware
- Designed and built entire Python Flask front-end for Bad ACTR to work with backend malware mimic tools
- Developed machine learning models using Markov Chains, Hidden Markov Models, and K-means to predict network traffic connections for Blue Horizon, a classified GTRI project
- Created data aggregation tools for Apiary, an automated malware analysis and threat intelligence framework
- Simulated man-in-the-middle attack to spoof TLS connections using virtual machines

Software Engineer Intern at Amazon AWS Kinesis *5/2018 - 8/2018*
- Developed, deployed, and tested feature to track and bill customer usage of AWS Kinesis in Java using a distributed job scheduler and custom test automation framework
- Exercised professional software practices including agile and scrum methodology, code reviews, and pipeline deployment

Software Engineer Intern at EuroAvionics *5/2017 - 8/2017*
- Developed full-stack application using Java servlets, Bootstrap, and Javascript Ajax to communicate with specialized aircraft hardware and provide a web interface to modify configurations in near real-time
- Expanded functionality of aircraft system by providing near real-time network and map overlay data to pilots

Projects

Nanoscale Barcode Identification *3/2019 - 5/2019*
- Research project to correctly identify 5-length fluorescent DNA monomer sequences for molecular tagging
- Tested and optimized classification results using machine learning algorithms: Support Vector Machines, Random Forest, Convolutional Neural Networks, and Naive Bayes

Quotebook AWS Web Application *10/2017 - 12/2017*
- Web application that allows users to add, edit, and view quotes by other users
- Application uses DynamoDB to store data, EC2 to run a Python Flask server, Boto3 to interact with AWS in Python, Bootstrap templates for front-end development, and Nginx and uWSGI for deployment

Technical Skills

Programming Languages: Java, Python, C/C++, MATLAB, HTML/CSS
Tools/Libraries: Git, AWS, Google Cloud, Flask, MongoDB, scikit-learn, Heroku, Arduino/mbed, Latex
Foreign Languages: Mandarin Chinese

Leadership

The Hive: ECE Makerspace President *5/2018 - 4/2019*
- Responsible for grand opening of a brand new, three-floor, completely student-run makerspace fitted with oscilloscopes, digital multimeters, soldering irons, laser cutters, 3D printers, microcontrollers, and more
- Planned dozens of events with sponsors/donors and met with ECE faculty and staff for strategic planning
- Interviewed and hired 100+ student volunteers and wrote dozens of standard operating procedure documents

Georgia Tech Astronomy Club President *8/2018 - 5/2019*
- Organized all club events including overnight stargazing trips, observatory visits, and hosting guest speakers