

AUSTIN LIU

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Education

MAY 2017 | **Duke University**, Durham, NC
Bachelor of Science in Electrical and Computer Engineering, Computer Science
‣ Cumulative GPA: 3.851/4.000
‣ Major GPA: 3.892/4.000
‣ Dean's List with Distinction (Fall 2013, Spring 2014, Fall 2014, Spring 2015, Spring 2016)

Experience

JUN 2016 -
AUG 2016 | **Goldman Sachs Group, Inc., Technology Division**, Jersey City, NJ
Software Engineering Intern
‣ Deployed a full stack regulatory application to production for the Legal, Compliance, and Auditing business unit and participated in every stage of the product life cycle
‣ Created a dashboard application using AngularJS, HTML5, CSS3, and proprietary UI frameworks
‣ Designed and developed a multi-threaded Java ETL process from scratch to query from Elastic Search clusters as a daily task
‣ Created a Dropwizard and Spring based REST API to interface between an Elastic Search index and our dashboard

JUN 2015 -
AUG 2015 | **NASA Glenn Research Center, Space Communications and Navigation**, Clv., OH
Satellite Network Engineer
‣ Integrated Docker emulation wrapper into the SCENIC Simulation Control Module
‣ Produced a scalable network emulation environment of Near Earth Network infrastructure via Linux and Docker tools, expanding future SCENIC collaboration through process containerization
‣ Unified SCA simulation software using the HLA run-time infrastructure: CERTI

AUG 2014 -
MAY 2015 | **Duke University, Bass Connections**, Durham, NC
Smart Grid Data Analyst
‣ Uncovered low SEER values in Smart Home HVAC heat pump system through machine learning by using an automated anomaly detection system on appliances
‣ Created a UI for visualizing real time appliance-level energy consumption
‣ Developed modified k-NN and neural net based algorithms to classify home appliances with a 96% accuracy rate based on power and energy parameters

Recent Projects

APR 2017 -
Present | **Phonics**
Portable Language Interpreter
‣ Winner of Best NLP application and top 5 hack overall for 2017 TribeHacks Hackathon
‣ Implements Object Recognition via on an Android application with the YOLO machine learning framework processed on a Node.js server
‣ Utilizes Natural Language Toolkit (NLTK) and Stanford's CoreNLP to evaluate complex passages
‣ Interprets input speech via Google Home assistant using Google's API.AI for real-time processing

Publications

‣ Liu, A.B., and Gilbert, J.T., "Feasibility of Docker for Emulation of Satellite Communication Networks," *NASA Student Online Research Journal*, published Sept. 2015

Skills & Tools

‣ **Programming Languages:** Java, Ruby, Python, Javascript, C, C++
‣ **Software Frameworks/Tools:** AngularJS, Rails, NodeJS, NLTK, Stanford CoreNLP
‣ **Languages:** English (fluent), French (intermediate), Chinese (intermediate)
‣ **Interests:** Machine Learning, Software Development, NLP, Signal Processing