



## EDUCATION

### Georgia Institute of Technology (GPA 3.9/4.0)

Atlanta, GA

Master of Science, Computer Science

Jan 2017 – May 2018

- Related coursework: Database Design, Computer Networks, Software Dev Process, Computability & Algorithms, Info Security, Network Security, Software Analysis & Test, Machine Learning for Trading, Software Architecture & Design, Human-Computer Interaction.

### Columbia University (GPA 3.4/4.0)

New York, NY

Master of Science, Mechanical Engineering

Sep 2012 – Dec 2013

- Related coursework: Finite Element Method, Computational Geometry, Robotics, and Embedded System.
- Awards: Toyota Motor Corporation Science Scholarship

### University of California, Berkeley (GPA 3.4/4.0)

Berkeley, CA

Bachelor of Science, Mechanical Engineering

Sep 2007 – Dec 2011

- Related coursework: Mechatronics Design, Microprocessor System, Engineering Analysis.
- Awards: University of California's Regents Scholar, Second Prize in UC Berkeley's Mechanical Design, 4th prize College Math Competition.

## PROJECTS

- Trading robot: apply machine technique Q-learner to trade stocks.
- Algorithmic trading: using panda and numpy to apply value investing concepts to automated trading.
- Java spring and hibernate public transportation web application.
- ML-based IDS: Training & Evading Machine Learning based Intrusion detection system: apply machine learning to detecting malicious payload and employ polymorphic techniques to bypass the IDS
- Emergency Resource Management System (DBMS) information management tool built with Python, Bottle (micro-web-framework), Amazon Web Services (AWS) RDS Postgres and EC2, Bootstrap Front End
- Mind Controlled Wheelchair (2<sup>nd</sup> prize @ UC Berkeley, <https://www.youtube.com/watch?v=HhD3DMjdKys>)
- Embedded system: Metal-bending machine, wall-climbing robot, brail-eBook, etc.

## WORK EXPERIENCE

### Naval Nuclear Laboratory (Knoll Atomic Power Laboratory) - Bechtel Corp.

Niskayuna, NY

Hardware Engineer – Nuclear Submarine Simulation.

Jan 2015 – Jan 2017

- Led several design projects to prototype nuclear equipment in the submarine engine room.
- Won the 2016 Naval Nuclear Laboratory Team Design Award with the steam engine valve simulator.
- Initiated development projects to create an immersive virtual reality environment for training using VR equipment and Unity game engine.

### Transit Wireless – New York City Subway

New York, NY

Design and Analysis Engineer

Jan 2014 – Jan 2015

- Developed the layout of a communications system in more than 120 subway stations and the main data center.
- Conducted stress analysis on equipment using Ansys to validate the equipment designs.

### Columbia University, School of Engineering

New York, NY

Teaching Assistant in Advance Thermo-dynamics / FEA

Sept 2012 – Jan 2013

- Analyzed thermodynamics effects on turbine blades using Ansys/Abacus, theoretical FEA models (using MATLAB), and physical experiments.
- Delivered weekly tutorials and problem sections to 47 students.

### UC Berkeley's Machine Shop

Berkeley, CA

Teaching Assistant in Manufacturing

Aug 2010 – Jan 2012

- Provided excellent assistance, technical training, and customer service to students and faculty.
- Implemented G-code programming and MasterCAM to automated and improved manufacturing process.

## RELEVANT SKILLS & QUALIFICATIONS

- Programming Languages: Python, Java, JS, HTML, CSS, SQL, MATLAB/Simulink, LabVIEW
- Embedded software: Motion control, Robotics, PLC.
- Quality Assurance: Six Sigma – Green Belt.
- US Citizen