Arleen Liu

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EDUCATION

Present — **Carnegie Mellon University** — Pittsburgh, PA
- Major: Statistics and Machine Learning

2015—2019 — **Homestead High School** — Cupertino, CA
- GPA: 3.94 (unweighted)

SKILLS

- Software: Python, Java, Javascript (React), NodeJS, MongoDB, DynamoDB, AWS Glue, Apache Spark, Swift, Linux, MySQL, Machine Learning
- Hardware: Arduino, Raspberry Pi

EXPERIENCE

SWE Intern, Intuit, *Mountain View, CA* — May 2020 - August 2020
- Work on price change tool to automate process of changing pricing for Quickbooks customers
  - Deliver entire feature (frontend and backend) for cohort identification (searching entire customer base to identify people eligible for a price increase) step in price change tool flow
  - Use React and Redux for frontend components, Java and DynamoDB on backend
- Implement Spark queries for automatic cohort identification of eligible customers for pricing plan change
- Coordinate intern-wide social event and present to entire intern population at Intern Summit event

Board Member, Undergraduate Entrepreneurship Association (UEA), *CMU, PA* — September 2019 - Present
- Teach and mentor startups through cohort program, organize startup pitch competitions
- Design and implement Entrepreneurship Program Portal
  - Creating a secure online portal with entrepreneurial curriculum and materials for organizations and individuals to use in startup mentorship programs
  - Concept modeled after MIT LaunchX for younger students to get started in entrepreneurship

Sponsorship Lead, ScottyLabs, *CMU, PA* — September 2019 - Present
- Create ResumeDrop+, a secure web resume management system for sponsoring companies of TartanHacks (CMU Hackathon organized by ScottyLabs)
- Use React for front end, NodeJS for the backend, and MongoDB to store resumes
- Auto-extract participant data from registration database, using the Google sheets API, into the web portal
- Curated sponsor packet and communicated with sponsor list for TartanHacks, hackathon hosted by ScottyLabs

Intern, Computational Energy Lab, BU RISE, *Boston University, MA* — July 2018 - August 2018
- Conduct university-level research to slow dendrite growth in lithium-air batteries (10x the capacity of current technology)
- Develop two custom algorithms in Python to quantify the growth rate of battery dendrites (tree-like structures that reduce battery life and cause short-circuiting)
- Model dendrites and the impact of different filter types by simulating them in Fortran as individual particles behaving by interacting with surrounding particles using fluid motion equations
- Further optimize algorithms and implement alternative methods of growth calculation to improve overall performance
- Present research at RISE Symposium

Science and Engineering Research Academy, *UC Santa Barbara, CA* — June 2017 - July 2017
- Investigate the effect of news sentiment on stock market prices using web scraping and applied machine learning techniques
  - Use supervised machine learning by applying a trained model on dataset of 500 articles scraped from various finance journals to determine overall sentiment score and impression of stock expectations
- Apply pattern recognition techniques and clustering algorithms to compiled graphics of accumulated data and analyze implications of trends

COO, Mindspark, *Sunnyvale, CA* — June 2018 - Present
- Teach Java class at Mindspark to 40 students over 2 years, a student startup that hosts summer programming camps
- Manage day-to-day operations and finances
- Negotiate vendor agreements with organizations such as Tutorfly to provide curriculums and expand into year-long classes