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### **EDUCATION**

Northwestern University | GPA: 3.76/4.00 B.S. Computer Science & Economics 2019

Kellogg Certificate Program in Managerial Analytics

Relevant Coursework: • Data Structures & Data Management • Intro Artificial Intelligence • Object Oriented Programming • Machine Learning • Deterministic Models & Optimization • Econometrics

#### **SKILLS**

TECHNICAL LANGUAGES

Proficient: Python , HTML, CSS Familiar: C++, Racket, Swift, Matlab MISC.

Pandas, NumPy, Tensorflow Git, Unix, Linux NATURAL LANGUAGES

English Cantonese Mandarin

# **WORK EXPERIENCE**

#### **Argonne National Laboratory**

Machine Learning Research Intern

Lemont, Illinois June 2017 to Current

- Building and applying various machine learning algorithms to characterize problem features associated with worst-case errors in linearizations of electric power flow equations.
- Conducting research on electric power grids and optimization algorithms under Dr. Daniel Molzahn.

**PNT Financial** 

**Software Engineering Intern** 

Chicago, Illinois June 2016 to September 2016

- Spearheaded project for optimizing a trade currently in production; Collaborated with traders daily to integrate trading logic.
- Performed complex analysis of large time-series data sets to design algorithms on Python identifying key patterns & impacts of economic releases for 100+ foreign exchange securities.
- Wrote 500+ lines of code in bug fixes and integral features for PNT's proprietary back-testing framework.
- Automated entire firm's bookkeeping process by developing two programs to parse over 1300 brokerage PDFs daily and format extracted data into Excel; Enhanced efficiency of 25 hr bookkeeping process to under 10 min.

### **PROJECTS**

#### Bot It: (Best Overall Underclassman Project at IEEE Project Showcase)

- Bot built on Python, Django, and Selenium made to automate the process of purchasing highly demanded, limited release items.
- Utilizes external captcha token generation to bypass Captcha, jump the query, and add item to cart.
- Presented design to judges from 10 different companies at IEEE Project Showcase, winning best overall underclassmen project out of over 20 teams.
- Pitched idea to The Garage, a startup incubator at Northwestern, and was accepted to be a resident team for spring quarter.

### Weight Watcher: (Communications Award Winner at Northwestern's Annual Design Expo)

- Engineered, with team of 3, a design for the Rehabilitation Institute of Chicago measuring weight offloaded by a bodyweight support treadmill, and sends live data to locally hosted site for physical therapists.
- Awarded Communications Award for best presentation & documentation of design out of 60+ engineering teams.

### **LEADERSHIP & ACTIVITIES**

NU Space Technology and Rocketry Society (NUStars) · Project Manager: Near Space Exploration Team March 2016 to Current

- Took over an abandoned team with 0 members and rebuilt, recruited, and co-led team of 8 freshman engineers.
- Engineer advanced high altitude balloons, conduct scientific experiments at 100,000+ ft altitude, and compete in Global Space Balloon Challenges; Completed 3 successful launches in two quarters.
- Managed and maintained NUStars website, updating regularly with teams' progress and photos.

IEEE · Exec Board September 2016 to Current

• Plan, organize, and promote school-wide hackathons, tech talks, and programming sessions with team of 10.

Resident Assistant August 2016 to Current

• Mentor, advise, and engage 500+ freshman with team of 16, planning weekly community builders & area programs.

## **ADDITIONAL**

#### **Awards**

4x Dean's List Recipient, Best Overall Underclassman Project (IEEE Project Showcase), Communications Award Winner (Northwestern Design Expo), National AP Scholar

#### Interests

Watching Youtube vlogs; Analyzing lyrics on RapGenius; Basketball & Track (13th in state IL 2A for the Mile)