Henry Huang

518.316.6532 | henry.huang324@gmail.com | henry-huang7

EDUCATION

Skidmore College

Bachelors in Computer Science, Bachelors in Mathematics *Graduating May 2020*

⇒ **Cumulative GPA : 3.53 / 4.00**

⇒ Relevant Coursework: Software Engineering, AI, Data Structures, Algorithms, Databases, Probability, Computability and Heuristics, Statistics

EXPERIENCE

Johns Hopkins Dept. BioMedical Engineering| Baltimore, MD

Research Internship in Machine Learning *May 2019 — August 2019*

⇒ Led development of a quality control image segmentation pipeline in Python that automated the tedious process of confirming data quality manually

⇒ Designed and implemented algorithms in Python and C++ to extract features from MRI images

⇒ Investigated and implemented a suite of machine learning classification models in Python to predict the diagnosis of Alzheimer's disease patients, discussing results in a paper

⇒ Developed plugins in C++ to compute curvature of brain surfaces, validating the approximations generated by in-house software

Skidmore College| Saratoga Springs, NY

Research Internship in Data Engineering *June 2018 – May 2019*

⇒ Built GPU programs to collect and clean data using Python and Bash, allowing for multi-stage model construction to be run over a period of days without operator intervention

⇒ Wrote software to analyze high-dimensional data using an ensemble of dimensional reduction and clustering techniques in Python

⇒ Presented research to PhDs and graduate students at the 2019 Biophysical Society Conference

Hong Kong University of Science and Technology | Hong Kong SAR

Research Internship in Software Engineering *June 2017 — August 2017*

⇒ Developed an app in C++ to aid in the testing of LCD's, reducing resource usage and labor-intensive tasks. Used Model-View-Controller (MVC) Architecture

PROJECTS

Algorithmic Trading

⇒ Analyzed intraday market pricing data using ML algorithms to develop a pairs trading strategy

⇒ Built a custom back testing engine in Java (running in AWS EC2 environment)

Board Game with Reinforcement Learning AI

⇒ Built a variation of the board game Labyrinth with two "AI" bots to play it

⇒ Implemented neural network for reinforcement learner and alpha-beta search algorithm

SKILLS

Languages

- Python
- Java
- Bash
- C / C ++
- SQL

Technologies

- Git
- TensorFlow
- AWS
- REST Services
- sklearn/pandas

INVOLVEMENT

Skidmore Computer Science Club — Founding Member and President

Skidmore Peer Academic Coaching — Tutor for Computer Science and Statistics