

Education

Yale University, New Haven, CT

Class of 2017

- B.A. Cognitive Science, Expertise and Expert Performance

Skills and Coursework

Languages and Technologies: Python, JavaScript, Java, C, Scheme, HTML/CSS, Linux/Unix, Git version control, SQL/SQLite, VMware, Scripting/automation, Excel w/ Pivot Tables, R

Selected Coursework: Artificial Intelligence, Language and Computation, Intelligent Robotics, Computational Vision & Biological Perception, Mathematics for Computer Science, Algorithms

Projects and Organizations

planetbanatt.net, *Portfolio Website*

June 2016 – Present

- Static website with Bootstrap frontend generated via emacs org mode html export
- Hosts write-ups for projects listed below + others, see: planetbanatt.net/projects.html

Making Sense of Melee, *Independent Project*

January 2018

- Longform statistics / data analytics project using data from Super Smash Brothers tournaments
- Write-up received 50,000 hits and reached #6 on *Hacker News*
- Analyzed efficacy of Melee National Seeding and Explored flaws in commonly-used rating systems such as Elo
- Used data analytics in Python to assess probability of victory between players given character, skill level, etc.

Input Latency Perception in Expert-Level Gamers, *Senior Thesis Project*

May 2017

- Programmed a double-blind input latency perception task using an Arduino microcontroller
- Travelled to gaming tournaments to compare high-level players to a control population of undergraduates
- Demonstrated a statistically significant ($P = 0.0008$) difference in perceptual ability between the groups

Locating Visual Jokes in Homestuck with Rudimentary Computer Vision, *Independent Project*

December 2018

- Used computer vision techniques to group drawings in a webcomic that were similar to each other
- Implemented K-Means Clustering, Graph Community Detection, Edge Detection, and more in Python
- Used python packages such as Pillow, OpenCV, scikit-learn, and NetworkX alongside code written from scratch

SSBM Bracket Projection, *Independent Project*

September 2016

- Used Beautiful Soup 4 to make a SQLite database of results from Super Smash Brothers tournaments
- Used scikit-learn to build a classifier to predict wins and losses based on past data
- Performed analytics on relevant trends and visualized them with Matplotlib
- Outperformed projections done by smash.gg

Founder and President, *Yale Undergraduate Super Smash Brothers Club*

June 2014 – August 2017

- Founded a group with a membership of 250+ Students, led an intercollegiate team ranked top 4 in New England
- Hosted and organized weekly meetings, tournaments, and larger events at Yale

Work Experience

Junior Trading Operations Support Specialist

October 2017 – Present

Miami International Holdings Inc., Princeton, NJ

- Wrote Regression testing cases to debug functionality in exchange matching engine software
- Wrote VBA macros in Excel to facilitate creation and curation of regression test cases
- Provided trade support and functionality certification for firms trading options on MIAX exchanges

Student Technician

January 2014 – August 2017

Yale Information Technology Services, New Haven, CT

- Performed hardware repairs and regularly updated end-users on their computers
- Provided remote support, including configuring VPN, multifactor authentication, and networking

Network Operations Intern

June 2016 – August 2016

High Point Solutions, Sparta, NJ

- Project lead in writing Groovy scripts for LogicMonitor software
- Provided cost/benefit analysis for device management