Eryk **Banatt**

(973) 945-5263 | erykbanatt@gmail.com | planetbanatt.net

Education

Yale University   *New Haven, CT*

B.A. in Cognitive Science   *August 2013 - May 2017*

- Concentration: Expertise and Expert Performance

Skills and Coursework

Skills   Python, Keras, Tensorflow, scikit-learn, Git, SQL/SQLite, Emacs, LaTeX, R

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

Experience

The Johns Hopkins University Applied Physics Lab   *Laurel, MD*

Artificial Intelligence Researcher   *April. 2019 - Present*

- Performed deep learning research to solve problems using artificial intelligence

Miami International Holdings Inc.   *Princeton, NJ*

Junior Trading Operations Support Specialist   *October 2017 - March 2019*

- Wrote regression test cases to debug functionality in exchange matching engine software
- Wrote VBA Macros in Microsoft Excel to facilitate creation and curation of regression test cases

High Point Solutions   *Sparta, NJ*

Network Operations Intern   *June 2016 - August 2016*

- Project lead writing Groovy scripts for LogicMonitor software

Projects

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 recieved 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
- Performed analytics with 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 tournament to compare high-level players to a control population of undergraduates
- Demonstrated a statistically significant ($p=0.0008$) difference in perceptual ability between 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 to outperform projections based on seeding