Jonathan Montag

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EDUCATION

Hofstra University **Expected May 2021**
Candidate for Bachelor of Science in Computer Science

SKILLS

Proficient in: Python, JavaScript, ReactJS, Pandas, NumPy, Matplotlib, HTML & CSS, Git & GitHub
Familiar with: C++, Java, Rust, Scheme, Flask, SQL, Heroku, AWS S3, DynamoDB, MongoDB

WORK EXPERIENCE

BankRoll (Y-Combinator startup candidate) **Aug 2020 - Jan 2021**
Co-Founder
- Developed a web application using React to give sports bettors personalized portfolio management advice and intelligent sports picks and received an interview with Y-Combinator in California to pitch our startup for a potential investment
- Presented a ten minute pitch of the potential business opportunity to Geoff Ralston (President of Y-Combinator), a Google software engineer, and three other Y-Combinator employees
- Developed minimum viable product with two team members in New Hampshire
- Hosted COVID safe gatherings every weekend to have users test our application and give first-hand feedback
- Did not receive funding due to a conflict with BankRolls market space
- Acquired 75 people to sign up within the first month of launching the website which resulted in managing over $75,000 of users' portfolios
- Leveraged knowledge in: JavaScript, React, Python, Flask, Heroku, MongoDB, GitHub

RationalAi **Jun 2020 - Aug 2020**
Software Developer, Intern
- Researched applications of genetic programming/genetic algorithms in the stock market, specifically on ETFs
- Wrote custom fitness functions to utilize the Sharpe ratio instead of profit to increase the profitability of current algorithms
- Increased efficiency and speed of trading system by implementing decision tree pruning algorithms in Python to prevent the creation of unnecessary tree branches and mitigate the risk of overfitting
- Leveraged knowledge in: Python, Pandas, Matplotlib, and NumPy

Hofstra University **Jun 2019 - Sept 2019**
Software Developer, Summer Research Intern
- Increased accuracy of a natural language processing multiclass classifier from 70% to 80% by tagging each sentence in the training/validation/testing set with its sentiment analysis score in accordance with other feature engineering techniques
- Utilized natural language processing and feature engineering techniques to produce accurate multiclass classification predictions.
- Leveraged knowledge in: Python, Data Mining, Pandas, NumPy, Matplotlib, Scikit-Learn

IdeaHUb Startup Incubator **Oct 2018 - Sept 2020**
Product Development Engineer, part-time
- Assisted over 25 local entrepreneurs and students in turning ideas into fully working products
- Lead workshops to teach students and local entrepreneurs how to get started programming or learn CAD
- Leveraged knowledge in: Raspberry Pi/Arduino hardware & software, Autocad, laser cutting, 3D printing hardware & software

PROJECTS

Kickstarter Predictor
- Worked with a team of four students to create a web application capable of predicting if a Kickstarter campaign would be successful
- Developed a web application using React and Flask to provide Kickstarter users the option to see their likelihood of raising funding
- Leveraged knowledge in: Python, Pandas, NumPy, Matplotlib, React, Flask, JavaScript

League of Legends Match Predictor
- Created a machine learning model to predict the outcomes of professional e-sport matches
- Cleaned and preprocessed historical player data using the pandas and NumPy libraries in Python
- Predicted professional League Of Legend matches with an accuracy of 67% on the testing set
- Currently researching other feature engineering techniques to increase the accuracy of the model
- Leveraged knowledge in: Python, Pandas, NumPy, Matplotlib, and Jupyter Labs
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LINKS

LinkedIn: https://www.linkedin.com/in/jonathan-montag-730017142/
GitHub: https://github.com/jmontag21