

Adithya Solai

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EDUCATION

University of Maryland – College Park, MD

Bachelor of Science, Computer Science

Minors: Statistics & Business Analytics

Expected Grad: Spring 2022

Cumulative GPA: 3.938 / 4.0

TECHNICAL SKILLS

Languages: Python, Java, SQL, HTML/CSS, R

Technologies/Frameworks: Pandas, NumPy, OpenAI Gym, Databricks (PySpark, SparkSQL), Tableau, Matplotlib

WORK EXPERIENCE

Amazon

Software Development Engineer Intern

Seattle, WA

June 2021 – August 2021

Ocient

Software Engineer Intern

Chicago, IL

January 2021 – April 2021

605 (Data Analytics Firm for TV Ad Measurement)

New York, NY

Junior Data Analyst

May 2020 – August 2020

- Utilized Databricks' PySpark/SparkSQL to optimize SQL queries that operate on a data pipeline of 5+ vendors and billions of rows of data on a daily basis to reduce Spark cluster costs and save future development time.
- Built Tableau dashboards to deliver daily reports with 50+ metrics that visualize the flow and accuracy of data.
- Conducted ad-hoc analysis on data methodology questions to improve the accuracy of 605's Platform app.

Data Solutions Intern

June 2019 – August 2019

- Regression Analysis Engine:** Developed a script that accurately compares 605's live algorithms with those in development by randomizing and parameterizing 20+ possible user fields to generate 10+ million input combinations.
 - Queried relational databases using SQL to dynamically define 20+ field ranges and make the analysis more robust.
 - Generated formatted report sheets to clearly visualize algorithm inefficiencies for 45+ non-technical users.

Medium – Towards Data Science

Remote

Writer

July 2020 – Present

- Publishing educational data science articles in the premier publication (440k+ followers) for data science discourse.
- Wrote a blog series (100+ likes) on Reinforcement Learning for AI newcomers. (adithyasolai.medium.com)

University of Maryland

College Park, MD

Teaching Assistant (BUDT 758B: Big Data & Artificial Intelligence for Business)

August 2020 – Present

- Guiding 120 M.S. in Information Science students on Deep Learning concepts and PyTorch coding assignments.

PERSONAL PROJECTS

Monte Carlo Blackjack – Python (Pandas/NumPy/OpenAI Gym/Matplotlib)

- Designed a policy-based, stochastic Reinforcement Learning (RL) algorithm that uses the First-Visit Monte Carlo Method and a Blackjack environment built from scratch in OpenAI Gym to maximize Blackjack returns.
- Reduced casino edge from 20% to 4% by training an AI agent with my RL algorithm through 1 million epochs.
- Improved my RL algorithm by optimizing γ (discount rate), α (learn rate), and ϵ (explore vs exploit) for max returns.

Song Lyrics Analysis Script – Java

- Analyzed 8 lyricism metrics in thousands of lyrics to investigate the lyrical creativity of 3 hip-hop artists.

NBA Analytics – Python (Pandas/BeautifulSoup)

- Scraped season stats for 400+ NBA players using BeautifulSoup. Used Pandas to clean 30+ rows and explore data.

LEADERSHIP

UMD International Economics and Finance Society (IEFS) – VP of Content

December 2019 – Present

- Building Sentiment Analysis Models using Natural Language Processing and conducting fundamental research on equities in 2 sectors (Retail & Food/Beverage) for a student-led investment fund with \$5k+ in capital and coverage of 12+ sectors.
- Creating an educational, data science-oriented branch of IEFS to help members break into quantitative finance roles and attract new members from technical backgrounds to diversify the #1 rated club at the Smith School of Business.
- Lead a committee of 4 researchers in developing and presenting professional slide decks and case studies to 70+ club members on topics such as value investing, cryptocurrencies/blockchain, and the macroeconomics of political policy.
- Spearheading **IEFS Digest** as Chief Editor & Writer to publish articles on topics like market technical analysis, oil futures, recession indicators, etc. (medium.com/umd-iefs-online-content) (10 articles already published. More coming soon.)

AWARDS/HONORS: ACT: 35, Bloomberg Market Concepts Certification, UMD CMNS Dean's List x 3

INTERESTS: Fantasy Novels (Tolkien, GRRM), Hip-Hop, Chess, Basketball (LeBron!), & Skateboarding