Adithya Solai

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PROFESSIONAL EXPERIENCE

Amazon Web Services | *Software Development Engineer I* – Seattle, WA   **Aug. 2022 – Present**
Amazon Web Services | *Software Development Engineer Intern* – Seattle, WA   **Jun. 2021 – Aug. 2021**
- Created CloudWatch metrics for customer secrets stored in AWS Secrets Manager.

Ocient | *Software Engineer Intern* – Chicago, IL   **Jan. 2021 – Mar. 2021**
- Developed a Page Quarantining dev tool for a Raft cluster consensus framework that reduced debugging time by hours for 10+ Stream Loader Engineers by allowing them to "quarantine" bad data chunks on a faulty dev or production cluster.

Univ. of Maryland | *Course Facilitator (CMSC389G: What to do After Landing a SWE Job)*   **Aug. 2021 – May 2022**
- Developed **Testudo Bank** – an educational Java Spring banking application that 15 students contributed to.
- Built and presented 10 lectures on Git, Code Reviews, Unit Testing, *Clean Code*, and Design Docs.

EDUCATION

University of Maryland – College Park, MD   **Graduated Spring 2022**
Bachelor of Science, Computer Science (Minor: Business Analytics)   **Cumulative GPA: 3.902 / 4.0**

TECHNICAL SKILLS

Languages: Java, Python, C++, SQL, JavaScript, HTML/CSS
Technologies/Frameworks: Spring, Maven, ReactJS, Pandas/NumPy, scikit-learn, NLTK

TECHNICAL PROJECTS (View Code at github.com/adithyasolai)

Reddit Sentiment Analyzer – Python (Pandas/NumPy/NLTK VADER/Matplotlib) – *Apex Student Fund*
- Developed an interactive SA that fetches the top 30 Reddit posts from a specified SubReddit that match a specified query, and then computes and visualizes custom "Positivity" and "Negativity" scores for each post.

Testudo Bank – Java (Spring Web/Maven/MySQL) – *CMSC389G: What to do After Landing a SWE Job*
- Built an educational banking application that follows MVC Architecture and Spring paradigms like dependency injection.
- Led 15 students to contribute 3 new features by writing Design Docs and reviewing code from 50+ Pull Requests.
- Infrastructure tasks: built AWS dev environments, configured MySQL DB, wrote Python scripts to populate MySQL DB.

Monte Carlo Blackjack – Python (Pandas/NumPy/OpenAI Gym/Matplotlib) – *Personal Side Project*
- Designed a policy-based stochastic Reinforcement Learning (RL) algorithm that uses the First-Visit Monte Carlo Method and a custom Blackjack environment built in OpenAI Gym to maximize Blackjack returns.
- Reduced casino's advantage 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.

NBA Three Point Revolution – Python (Pandas/scikit/seaborn/BeautifulSoup) – *Personal Side Project*
- Conducted Linear Regression to analyze significance of 3-pt efficiency in predicting team win % across 4 NBA eras.
- Scraped 3000+ NBA player season average records and team standings data dynamically using BeautifulSoup.
- Built violin plots with seaborn to visualize trends and outliers for 3-pt attempts and 3-pt efficiency across 20 years of data.

LEADERSHIP/INVOLVEMENT

Apex Student Fund | *Quantitative Equity Research Lead* – Univ. of MD   **Jun. 2020 – May 2022**
- Built a **Reddit Sentiment Analyzer** used by Fundamental Analysts to gauge public sentiment on prospective equities.
- Managed a team of 4 Quant Analysts by designing projects, conducting code reviews, and deploying projects on AWS.
- Conducting fundamental equity research (Discounted Cash Flow Modeling, Relative Valuation, etc.) on equities in the Software sector for a student-led investment fund with $13k+ in capital and coverage of 12+ sectors.

International Economics and Finance Society (IEFS) | *VP of Content* – Univ. of MD   **Dec. 2019 – Dec. 2020**
- Led 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, investment banking, and SaaS business models.
- Spearheaded IEFS Digest as Chief Editor & Writer to publish 13 articles on topics like market technical analysis, oil futures, recession indicators, etc. (medium.com/umd-iefs-online-content)

Medium (Towards Data Science) | *Writer* – Remote   **Jul. 2020 – Nov. 2020**
- Wrote an educational blog series (2.5k+ reads) on my **Monte Carlo Blackjack** project. (adithyasolai.medium.com)