# Adithya Solai

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## PROFESSIONAL EXPERIENCE

**Amazon Web Services |** *Software Development Engineer* – Seattle, WA                    **Aug. 2022 – Present**
- Updated AWS Secrets Manager's (ASM) [Alternating-Users Rotation](#) to integrate with [RDS' Service-Linked Admin Secrets](#). All new RDS instances since launch use this integration by default when rotation is configured on any database users.
  - Completed a similar integration as above with [Redshift's Service-Linked Admin Secrets feature](#).
  - Published an [AWS Blog Post](#) to guide AWS customers through using the new integration.
- Implemented a data key encryption caching solution for ASM's [BatchGetSecretValue API launch](#) at AWS re:Invent 2023.
- Created a hybrid secret rotation strategy to meet compliance requirements and authored a [blog post](#) to educate customers.
- Built a bot that generates internal tracking tickets from Issues/Pull Requests in 8+ ASM GitHub Repos.

**Amazon Web Services |** *Software Development Engineer Intern* – Seattle, WA                    **Jun. 2021 – Aug. 2021**
- Created a [Secret Count CloudWatch metric](#) for all AWS customers that store secrets in AWS Secrets Manager.

**Ocient |** *Software Engineer Intern* – Chicago, IL                    **Jan. 2021 – Mar. 2021**
- Built a developer tool for a Raft cluster consensus framework that reduced debugging time by 3+ hours weekly for 10+ Engineers by allowing them to "quarantine" bad data chunks on faulty dev and production clusters.

**Univ. of Maryland |** *Course Founder (CMSC389G: What to do After Landing a SWE Job)*                    **Aug. 2021 – May 2022**
- Developed **Testudo Bank** – an educational Java Spring banking application that 45 students contributed to.
- Designed a curriculum with 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 (Data Science Specialization)                    **Cumulative GPA: 3.902 / 4.0**

## TECHNICAL SKILLS

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

## PERSONAL PROJECTS

**Apex Pies ([apex-pies.com](apex-pies.com))** – JavaScript, Python (ReactJS/Flask/Sass/AWS/Firebase) – *Personal Side Project – 2024*
- Developed an educational website that enables users to create and visualize investment portfolios with their preferred qualities to learn more about diversification. Users can also create an account and save their pies for later.
- Leveraged this AWS stack to host a Flask backend and configure DNS routing: ECS, ECR, ELB, Route53.

**[Reddit Sentiment Analyzer](#)** – Python (Pandas/NumPy/NLTK VADER/Matplotlib) – *Apex Student Fund – 2022*
- Developed a Sentiment Analyzer that enabled Apex Fund's 8+ Equity Researchers to fetch the top 30 Reddit posts of a specified SubReddit that match a given query and visualize custom "Positivity" and "Negativity" scores for each post.

**[Testudo Bank](#)** – Java (Spring Web/Maven/MySQL) – *CMSC389G: What to do After Landing a SWE Job – 2022*
- Built an educational banking application that follows MVC Architecture and Spring paradigms like dependency injection.
- Led 45 students to contribute 3 new features by writing Design Docs and reviewing code from 50+ Pull Requests.

**[Monte Carlo Blackjack](#)** – Python (Pandas/NumPy/OpenAI Gym/Matplotlib) – *Personal Side Project – 2020*
- 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.

## LEADERSHIP/INVOLVEMENT

**Minds Matter Seattle |** *Student Engagement Lead, Mentor, Math & Writing Instructor*                    **Aug. 2022 – Present**
- Implemented new initiatives like semi-annual holistic surveys/analysis and an attendance/feedback system for a non-profit college prep Saturday school that serves 46 high-achieving high-schoolers from low-income families.

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