

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' Auto-Created Admin Secrets](#). Since launch, all new RDS instances & 0.5% of all Secrets use this integration by default when rotation is configured.
 - Completed a similar integration as above with [Redshift's Auto-Created Admin Secrets feature](#).
 - Published an [AWS Blog Post](#) to guide AWS customers through using the new integration.
- Implemented a caching solution for encryption data keys as part of ASM's [BatchGetSecretValue API launch](#) at AWS re:Invent 2023, which reduced server-side latency by 85% and eliminated dependency API calls on cache hit.
- 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
Bachelor of Science, Computer Science (Data Science Specialization)

Graduated Spring 2022
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) – 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 in the Software sector for a student investment fund with \$13k+ in capital.