

CHASE CHA

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EDUCATION

University of Virginia, School of Data Science, Charlottesville, VA

Expected June 2026

M.S. in Data Science

- Relevant course work: Introduction to Predictive Modeling, Data Pipelines Architecture, Machine Learning II: Statistical Learning, Machine Learning III: Deep Learning

University of Virginia, College of Arts and Sciences, Charlottesville, VA

August 2022 - May 2025

B.A. in Computer Science

- GPA: 4.0 / 4.0
- Relevant course work: Data Structures and Algorithms, Computer Systems and Organizations, Discrete Mathematics and Theory, Software Engineering, Computer Networks, Introduction to Cybersecurity

TECHNICAL SKILLS

- Programming Languages: Java, Python, C, JavaScript, Typescript, HTML, CSS, R
- Frontend Frameworks: React, Next.js, Tailwind CSS
- Testing Frameworks: JUnit, Mockito
- Experienced with GitHub and Git version control

WORK EXPERIENCE

Software Development Engineer Intern, **Amazon**, Irvine, California

June 2025 - August 2025

- Designed and implemented a full-stack LLM-powered query assistant that translates natural language questions into SQL, executes queries on millions of partitioned analytics records, and explains results — enabling on-call engineers to resolve tickets in minutes instead of manually searching logs across teams
- Built on AWS services including Glue (schema governance), Athena (query execution on Apache Iceberg tables), Bedrock (LLM integration), and CDK (infrastructure as code), while leveraging Apache FreeMarker to dynamically embed business context into LLM prompts
- Engineered prompt strategies to generate valid, performant SQL, enforced partition constraints to avoid long-running queries, and optimized cost/latency by caching schemas and prompts, tuning LLM parameters, and limiting token usage
- Drove project end-to-end as sole developer: system design, implementation, testing, documentation, and organization-wide demo to engineers and leadership

Software Development Intern, **Levered Technology LLC**, Remote

May 2024 - August 2024

- Developed server side rendered and SEO friendly landing pages for two multiple location businesses with React, Typescript, and Tailwind CSS, improving customer actions by over 15% and increasing page views by 13%
- Researched lower cost alternatives for hosting webpages and ultimately built a Next.js page template hosted on AWS amplify to leverage for future company projects, lowering company costs by 10%
- Contributed to the production of an automatic review response website by fine-tuning an Open AI model using past response data and interfacing with the LlamaIndex library to utilize the trained AI model in the project, achieving more human-like and less deterministic responses

Teaching Assistant - CS Department, **University of Virginia**, Charlottesville, VA

January 2025 - May 2025

- Hold office hour sessions twice a week to answer student questions regarding class concepts and assignments
- Grade quizzes and assignments to assist class professor
- Attend weekly lab periods to answer student questions and check their work at the end of the period

PROJECTS

Project Management App

- Developed a full stack project management app using the Django Python framework, a PostgreSQL database, Bootstrap for the user interface, AWS S3 for static file storage, and Heroku for cloud hosting
- Allows users to log in through Google's log in API, create projects, request to join projects, upload files to their projects, and post messages to other project group mates

Course Review Forum

- Engineered a data-persistent course review platform using JavaFX and FXML for the user interface, Java with SQLite for backend data management, and JUnit and Mockito for unit and integration testing. Enabled users to log in, add and search for courses, write and view course reviews, and manage their own reviews through a streamlined interface

VOLUNTEER EXPERIENCE

Odyssey Service Volunteer, **Odyssey Atlanta**, Atlanta, GA

May 2019 - July 2023

- Non-profit summer program dedicated to helping academically motivated students get a head start on their course work for coming school year
- Accumulated 200+ service volunteer hours for this organization
- Guided students through classroom assignments, taught lessons, tutored children one-on-one, and supervised lunch and recess
- Completed paperwork and handed out class materials to assist my assigned teacher