

Amaan Chaudhry

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EDUCATION

Texas A&M University

Expected Graduation – May 2025

Bachelor of Science, Major in Computer Engineering; Minor in Mathematics,

College Station, TX

Fast-Track Master's Program in Computer Engineering (taking Master's-level courses)

- GPA: 3.8/4.0 | Recipient of the prestigious Dean's Honor Award for outstanding academic excellence
- Relevant Courses: Program Design, Data Structures & Algorithms, Discrete Math, Computer Architecture, Computer Systems, Software Engineering, Microcomputer Systems, Database Systems, Machine Learning, Statistics, Software Security, Cybersecurity

PROFESSIONAL EXPERIENCE

State Farm

May 2024 – Dec 2024

Software Engineer Intern

Remote

- Designed and implemented AWS resources (Lambda, Glue, DynamoDB, S3, API Gateway, Athena) to optimize the architecture of a data profiling tool, improving data quality and integrity across datasets in the data catalog.
- Developed and deployed RESTful APIs using API Gateway and Lambda, integrating front-end and back-end components to deliver a seamless data profiling solution that profiles large datasets within seconds to minutes.
- Automated infrastructure provisioning with Terraform and built a GitLab CI pipeline, improving scalability and reducing manual effort.
- Collaborated with the UI team to enhance React front-end features, fixing 10+ bugs and improving user experience for end-users.

Texas A&M Autonomous Systems Laboratory

Sep 2023 – May 2023

Research Assistant

College Station, TX

- Participated in the development of vision-based traffic sign detection, specializing in stop signs, speed limits, rail crossing signs, and construction signs. Implemented YOLO5 algorithms and utilized ROS in Python and C++ for object detection and tracking
- Contributed to the prestigious AutoDrive Challenge, collaborating with professors, General Motors mentors, PhD students, and fellow undergraduates to build a fully autonomous passenger vehicle for urban/rural driving courses

USAA

May 2023 – Aug 2023

Software Engineer Intern

San Antonio, TX

- Designed and implemented a serverless solution using AWS Lambda to automate conversion of large CSV files to JSON, with data validation, transformation, and enrichment upon file upload to S3, ensuring efficient handling of complex datasets at scale.
- Implemented Terraform Rover, a visualization tool, to the GitLab pipeline, achieving +20% faster plan approvals and large time savings

Cicero

Oct 2022 – May 2023

Software Engineer Intern

Remote

- Optimized onboarding, cutting time by ~25% and improving user experience. Fixed UI bugs, boosting app performance
- Enhanced the Cicero web app by transforming it into a cross-platform mobile application, leveraging the robust Capacitor framework
- Spearheaded the migration of the React app to the Remix framework, utilizing server-side rendering to improve loading times of content by ~30% and a boost in overall app performance

PERSONAL PROJECTS

Rev's Grille Point-of-Sale Cloud Based Full Stack Application

Jan 2024 – May 2024

- Engineered a feature-rich POS system leveraging Next.js, React, Node.js, AWS, and PostgreSQL technologies for efficient order and inventory management, and a comprehensive visualization dashboard for trends and insights.
- Integrated OAuth for authentication and role-based permissions, incorporating Weather and Translation APIs for enhanced user experience. Additionally, implemented a text size adjustment feature and mobile-friendly UI.
- Collaborated via GitHub projects and Agile methodology, with Jest and Playwright ensuring robust unit and end-to-end testing

Stock Predictor Web Application

Sep 2022 – Jan 2023

- Developed dynamic LSTM web app for precise stock price prediction, integrating Yahoo Finance data via efficient Pandas and NumPy scraping, employing Matplotlib for insightful visualization, delivering daily stock predictions at 85% accuracy
- Successfully deployed the interactive Python Streamlit app on AWS EC2 and Route53, ensuring seamless online access for users

OTHER

- **Technical Skills:** Python, Java, C++, Next.js, React.js, HTML/CSS/JavaScript, Tailwind, SQL, ROS, Assembly, Scheme, Verilog
- **Tools and Technologies:** Linux, Git/GitHub/Gitlab, Amazon Web Services, Terraform, CICD, Robotics, CAD, Microsoft Office
- **Certifications & Training:** AWS Certified Cloud Practitioner, JPMorgan Software Engineering Virtual Experience