Joshua Lee

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EDUCATION

Texas A&M University – College Station, TX **Expected 2027**
Degree – Bachelor of Science in Computer Science

SKILLS

- **Languages: C++ (STL, Memory Management)**, Python, JavaScript, TypeScript, Java, Swift, HTML, CSS, SQL
- **Frameworks/Tools:** Linux/Unix, Git, **Object-Oriented Design**, Algorithms, AWS, Flask, React, Numpy, Node.js

EXPERIENCE

Software Engineer Intern | MegaGen America (Fair Lawn, NJ) **June 2024 - August 2024; May 2025 - August 2025**

- **Spearheaded** the full lifecycle development of an internal warranty automation platform (React, Node.js), replacing manual workflows to increase operational throughput by **60%**.
- **Architected** a secure global file-sharing portal using **AWS S3**, managing access controls for technical assets distributed to 100+ countries.
- **Refactored** legacy codebases to establish "Clean Code" standards, reducing technical debt and improving maintainability for mission-critical web services.

Product Manager / Software Engineer Intern | Allen Police Department (Allen, TX) **February 2024 - May 2024**

- **Designed** a secure digital records management system, migrating 5,000+ sensitive vehicle logs into a structured SQL database to improve data retrieval speeds.
- **Conducted** usability testing with officers to optimize UI/UX workflows for **high-stress, time-critical environments**.

Summer Researcher | University of Texas at Dallas (Richardson, TX) **May 2023 - July 2023**

- Engineered and optimized machine learning models for health diagnosis using Python and Google Colab, achieving 85–91% classification accuracy across multiple datasets through rigorous critical thinking and problem-solving.
- Researched and streamlined algorithms for diagnosis classification and feature extraction, demonstrating collaboration, attention to detail, and innovation in biomedical data analysis.

PROJECT

Autonomous Tactical Strategy Engine (C++) | C++, STL, SFML, Algorithms **December 2025**

- Engineered a high-performance decision-making engine using the **Minmax algorithm with Alpha-Beta pruning**, optimizing search tree depth to reduce computational overhead by 40%.
- **Implemented** a simulation module to execute 100+ automated iteration cycles (AI vs. AI), generating statistical performance metrics to validate algorithmic efficiency and win rates.
- **Designed** a memory-safe object-oriented architecture to manage complex state transitions, utilizing raw pointers and custom destructors to ensure zero memory leaks during recursive search operations.

SmartSpend - Real-Time Financial Analysis System | React, Node.js, Python **January 2026**

- **Architected a secure full-stack financial platform**, migrating from static file storage to a **PostgreSQL** database managed via Prisma ORM to ensure data integrity and scalability.
- **Implemented JWT-based authentication** and bcrypt encryption, designing custom Express middleware to secure RESTful API endpoints and protect sensitive financial data.
- **Engineered an NLP classification microservice** (Scikit-Learn) that utilizes a Naive Bayes algorithm to auto-categorize transaction descriptions with **90%+ accuracy**, reducing user data entry time.

AWARDS & HONORS

- **CyberPatriot National Cyber Defense Competition Semi-Finalist:** Ranked in the top 25% of 26,000+ competitors, demonstrating proficiency in system hardening and network security.
- **TAMU Engineering Honors:** Selected for top 6% of engineering students based on academic excellence.

Work Eligibility - Eligible to work in the U.S. with no restrictions