

Logan Roe

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EDUCATION

Iowa State University

Ames, IA

Bachelor of Engineering in Computer Engineering, Minor in General Business

Aug. 2021 – May 2025

- GPA: 3.80/4.00
- Dean's List & ISU Honors
- **Relevant Coursework:** Design & Analysis of Algorithms, Principles of AI, Big Data Analytics, Construction of User Interfaces, Advanced Object Oriented Programming, Digital Logic, Operating Systems

TECHNICAL SKILLS

Languages: Java, Python, HTML/CSS, JavaScript/TypeScript, MATLAB, SQL, C++, Kotlin, Groovy

Frameworks: React/React Native, Node.js, JUnit, Spring, Angular, Express

Developer Tools: Git, AWS, Docker, Unix, Linux, Visual Studio, IntelliJ, Eclipse, Jenkins, AI Training (YOLOv11)

EXPERIENCE

Ad Tech Software Engineer

August 2025 – Present

Amazon

Seattle, WA

- Migrated tens of thousands of advertisers between regions using in-depth testing and monitoring health charts to confirm full functionality, while keeping an easy rollback plan in place to mitigate impact.
- Implemented more robust checking for automated recommendations with thorough automated testing for advertisers in the Japan marketplace, resulting in reliable performance for thousands of advertisers.

Computer Engineer

October 2022 – May 2025

John Deere

Ames, IA

- Optimized existing MATLAB projects using JSON caching and modularity, reducing processing time to one-fifth of the original duration and saving hundreds of colleagues up to two hours per day.
- Managed experimentation, prototyping, and approval of 8 new ideas I created by effectively demonstrating value, thus leading to a 25-30% higher adoption rate due to new, easier to use feature-sets.
- Led in-depth code demos to hundreds of colleagues for project exposure and criticism, leading to nearly 100% adoption of new, improved projects, up from around 30-40%.
- Produced in-depth, easy to read, easy to navigate documentation in HTML/CSS & JavaScript for a complex tool I created, leading to 50-60% less inquiries about how the tool functions and a 20-30% higher adoption rate.
- Managed automated testing using Jenkins, Node.js, and GitHub Actions, which led to higher coverage rates.

PROJECTS

HomeBase | *React Native, Git, SQLite, Expo Go*

May 2025 – Present

- Designed a comprehensive, scalable table structure properly separating concerns and allowing easy queries.
- Created an in-depth yet easy-to-understand home page for users to land on when opening the application.
- Laid out the list of functional and non-functional requirements for the application with payment tiers and add-ons.

dripdrop | *Python, React, React Native, TypeScript, AWS, Bruno, Expo Go, MySQL*

August 2024 – May 2025

- Developed the backend AWS infrastructure for a reliable and scalable application, supporting up to 1,000 concurrent sessions and averaging under 500 ms response time.
- Designed and developed the feed algorithm and front-end user interface for the feed, AI Suggestions, and more.
- Used AWS Cognito to set up API call authorization so only signed-in, valid users could make API calls.
- Designed and implemented the ER diagram for a comprehensive, scalable, easy-to-use table structure with media storage using S3 Buckets.

Adversarial Searching | *Python, Git*

January 2025 – May 2025

- Aided in the design & development of the comprehensive algorithms, using known algorithms such as A*, MCTS, Minimax, modified BFS, and Alpha-beta Pruning.
- Tested numerous solutions to find the best performing and most optimized algorithm, within spec.
- Received 1st place with an average score of about 1.8/3.0, with second place being about 1.4/3.0.