

# Eli Bales

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Software Engineer with +2 years of experience in full-stack development and AI. Seeking a challenging position where I can leverage my expertise in System Design and Machine Learning, as well as JavaScript, Python, and AWS

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## Experience

### Lead Engineer

Jan 2024 - Present

*Balance Technology, Inc.*

- Lead the team implementing the SaaS application's core features, including a financial application generator and document-sharing platform, achieving a 94% usability score from key clients.
- Designed and implemented the company's **technical infrastructure**, using **AWS** server instances with **CI/CD** pipelines, allowing for fast, scalable development to begin 3 weeks ahead of schedule.
- Spearheaded the creation and management of an organization-wide design system, standardizing React components across teams to ensure consistent branding and user experience.
- Managed company's relational (**Supabase**) and non-relational (**MongoDB**) databases that handled all user and application information, including necessary **at-rest** and **in-transit data security** measures.
- Fine-tuned vital **OpenAI model** used in our document analysis feature with text-extraction datasets, increasing model accuracy by 7% and reducing manual data input hours from clients.
- Engineered a robust CI/CD pipeline for the company's backend server using GitHub Actions, automating build and deployment processes, **reducing release times by 25%**.

### AWS Manager

July 2023 - Dec 2023

*CharmLife LLC*

- Promoted to AWS Manager after displaying proficiency for system design, successfully updating and restructuring company-wide **cloud infrastructure**, including **CI/CD** pipelines, **S3 buckets**, and **EC2 instances** to allow for continuous feature deliveries.
- Identified and eliminated unnecessary server instances, reducing cloud computing costs by 12%.

### Software Engineer

Jan 2023 - Dec 2023

*CharmLife LLC*

- Spearheaded the implementation of **AWS** Image Uploads and remodeled the UI/UX flow for User Verification, reducing clicks needed to sign up by 8.
- Refactored inefficient legacy code with modern **JavaScript** and **React** developer principles, directly reducing page load times by an average of 14% and improving code readability.

## Papers

**Twitter Sentiment Analysis Large Language Model (AI)** | [GitHub](#) | [Link](#)

*A linguistic machine-learning RoBERTa model that accurately analyzes user sentiment from tweets.*

- Tested multiple neural optimizers and **language models** to determine the best approach for improved **sentiment detection** on real-world data, achieving 95.38% accuracy and a 0.96 F1 on unseen test data, breaking into the top-ten scores on the shared task competition.

## Skills

**Languages:** JavaScript (Node.js, React.js), Python, Java, C++, HTML, CSS, SQL (PostgreSQL), NoSQL

**Tools and Libraries:** AWS, MongoDB, Git, PyTorch, NumPy, Pandas, Docker, Linux

## Education

**University of Washington, Seattle**

2022

*Master of Science, Computational Linguistics*

**University of Southern California, Los Angeles**

2021

*Bachelor of Science, Physics/Computer Science*