Matthew Bogard

Austin, TX | (512) 961-9526 | matthewkbogard@gmail.com | mbogard.com

SUMMARY

Dynamic and results-driven Senior Software Engineer with a robust expertise in full-stack development and system architecture. With a passion for leading high-impact projects from concept to deployment, I thrive in collaborative environments that foster innovation and continuous learning. My commitment to excellence is reflected in my ability to deliver scalable, secure, and efficient software solutions that drive business success.

TECHNICAL EXPERTISE

Current Tech Stack

JavaScript | React | Node.js | TypeScript | Python | PHP | Java| LLMs | SQL | Docker | GitHub | GitLab | Amazon Web Services (Certified Solutions Architect Associate)

Areas of Continued Learning

Core AI and machine learning development skills: proficiency with ML frameworks TensorFlow and PyTorch, building AI agent software applications on top of Large Language Models (LLMs), fine-tuning custom models for specific tasks, LangChain development, Python programming, MLOps, prompt engineering, studying new cybersecurity trends, and building secure software applications.

EXPERIENCE

Ludi, Inc.   October 2023 – Present
Senior Full Stack Software Developer

- **Technology Focus:** AWS, PHP, JavaScript, Python, SQL, GitLab, Docker, System Design

- **Team Leadership**: Led deployments of major features for the company's flagship software product.

- **Product Partner**: Guided epic design reviews, serving as a key liaison between Product and Engineering teams, aligning all on project requirements and implementation details.

- **Full Stack Development**: Demonstrated proficiency across the entire technology stack, taking ownership of feature development from conception to completion, including data modeling, back-end architecture, front-end implementation, and cloud infrastructure setup.

- **Process Improvement**: Proactively identified areas for improvement in my team's development processes, increased productivity with AI tools, implemented strategies for enhanced code review thoroughness, increased test coverage, and well-documented deployment practices.

- **Fast Problem Solver**: Excelled as the go-to developer for quickly implementing updates needed to meet client feedback. Balancing ad hoc work with planned sprint work.

- **Technology Migration Lead**: Managed the migration of major updates of the business' main software product including cloud/application architecture redesigns, as well as major version upgrades of our database and programming languages.

Passport, Inc.   March 2021 – August 2023
Software Engineer

- **Technology Focus:** JavaScript, React, Node.js, TypeScript, Java, PHP, AWS, Python, SQL, Docker, System Design

- **Full Stack Development**: Owned and completed feature development work for a suite of enforcement applications in React, Node.js, Java, and PHP.

- **Innovative Development**: Designed and implemented a real-time GPS map tool utilizing JavaScript, React, Node.js, and AWS services, enhancing enforcement team operations and system scalability.

- **Architectural Leadership**: Enhanced system architecture for the business' most important API using Node.js and AWS Lambda, achieving long-term scalability and improved system performance.

- **Product Partner**: Contributed as a key player in planning meetings by identifying scope and edge-cases for features, and adding developer notes to assist engineers.

- **Deployment Management**: Led major deployments, was responsible for a significant amount of the team's sprint story points and maintaining successful sprints.

- **Mentorship**: Guided junior and mid-level engineers, facilitating team-acclamation, solving for operational challenges due to timezone and communication style differences.

Red Ventures   December 2018 – March 2021
Software Engineer
- **Technology Focus:** React, Node.js, TypeScript, Java, AWS, Python, PHP, Python, SQL, GitHub, API development

- **Full Stack Development**: Owned and completed feature development work for central revenue-driving APIs as well as internal business tools in Node.js, Java, and React.

- **Revenue Protection**: Developed a critical React and Node.js application to safeguard the business' main revenue pipeline against third-party API failure, exhibiting strategic architectural thinking.

- **Architectural Innovation**: Overhauled a Content Management System for a vast editorial collection, leveraging Node.js, Python, and MySQL for efficient content delivery, ensuring robustness and scalability.

- **Product Partnership**: Contributed in planning and retrospective meetings, adding context to features reviewed in planning, and providing ideas for how the team can improve collaboration in retrospectives.

- **Cloud Management**: Established and managed AWS cloud infrastructure, using infrastructure-as-code methods such as Terraform to support various applications (React, Node, Java, Python, and PHP).

Scientific Politics, LLC   2018 – Present
Founder & Developer
- **Technology Focus:** Large Language Model (LLM) development, JavaScript, Node.js, Python

- Created a generative AI macOS application that accelerates task completion by using multiple AI agents that autonomously iterate and refine their approach to any given task. Available at ai.mbogard.com (2024).

- Developed JavaScript web applications presenting US congressional voting records and Census data, focusing on intuitive design and user-friendly experience. Available at mbogard.com/congress (2022) and mbogard.com/census (2018).

Texas Health & Human Services   January 2017 – June 2018
Project Manager, Rate Analyst
- Managed programming initiatives for Texas Medicare & Medicaid rates in a large department. Oversaw application code for annual adjustments in Medicare & Medicaid rates.

EDUCATION

Stanford Online - Machine Learning Specialization course completion (2023)
- Learned the fundamentals of machine learning and how to use these techniques to build real-world AI applications.

DeepLearning.AI - Various courses completed on the latest in AI technology (2023 - 2024)
- Completed the following courses:
    - Finetuning Large Language Models
    - LangChain for LLM Application Development
    - LangChain Chat with Your Data
    - Vector Databases: from Embeddings to Applications
    - ChatGPT Prompt Engineering for Developers
    - Building and Evaluating Advanced RAG Applications
    - How Diffusion Models Work

Amazon Web Services - Certified Solutions Architect Associate (2021)

The University of Texas at Austin - Graduated Full Stack Web Development certification program (2018)
The University of Texas at Austin - Graduated with a Bachelor's Degree in Government (2013-2016)