Zaid Qureshi

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About

With 10+ years of experience in bleeding-edge technologies and large-scale systems, I recently launched Guardrails for Amazon Bedrock, a pioneering service for safeguarding LLMs. I have created optimization initiatives projected to save $100M+ annually, also led projects that have saved $200M annually. Skilled in working backwards from customers, scaling distributed systems and AI applications, with a track record of serving millions and generating billions in revenue. Adept at solving ambiguous business problems with technology, bridging the gap between technical complexity and business needs, and driving measurable impact.

Professional Experience

Senior Software Engineer   *Apr 2020 to Present*
Amazon, Seattle

AWS Bedrock Guardrails

- Launched Bedrock Guardrails, a pioneering AWS service that helps organizations implement safeguards for generative AI applications. Collaborated with science teams, product management, and leadership to design customer experience, integrate advanced ML models, setting a precedent for LLM safeguards.
- Helped re-architecture of AWS Bedrock for parallel team development, reducing operational load and supporting independent scalability across 5 teams.

Amazon - Optimal Sourcing Systems

- Optimized the Direct Import supply chain by reshaping the import shipment booking process and improving inbound inventory management. Worked with multiple orgs to shape a new product that will provide Amazon vendors the most intuitive booking experience, while increasing the bar for safety and driving costs down for Amazon
- Created multi-year roadmap to increase adoption and launch program world wide. Worked on understanding regulatory compliances and bringing technical solutions to streamline processes. Influenced partner orgs to help us achieve our adoption goals
- Proposed and authored a paper to increase container utilization, projected to save $100M annually, now on the implementation roadmap.
- Led cross-team, multi-year projects involving four teams, defining how Amazon systems handle multiple ocean shipments from single booking requests, dangerous goods inventory, and inventory traceability at the start of supply chain (inbound) and after distribution to customers. Collaborated with SMEs to address operational challenges and translate them into software solutions.
- Directed the re-architecture project to transition monolith route optimization service to microservices, enabling the core allocation and route optimization system to be reused across Amazon's various import programs. This project helped improve a major scalability bottleneck, where the existing solution was sensitive to change in inventory size and required major development efforts to support new programs. This forward looking initiative allowed us to put flexible systems in place such that we could seamlessly achieve the 400% growth expected in the next 4 years.
- Partnered with UX team to build a solution to automatically measure and monitor customer experience in Amazons Vendor Central for each flow while maintaining customer privacy. Initiated and led the development of a robust UI metrics platform, collaborating across teams to streamline metric capture and automate dashboarding processes. Implemented a scalable framework for standardized metric collection and automated aggregation, enabling agile data visualization and actionable insights for operational efficiency and continuous improvement.
- Actively mentored and guided colleagues, fostering a culture of continuous learning and professional growth. Build new teams, created a forward looking growth plan for engineers to motivate team and highlight opportunities
- Technologies used: AWS (S3, Dynammodb, SQS, SNS, Event Bridge, ECS, IaaS, Sagemaker, Lambda...), Docker, Spring, Java, Typescript, JavaScript, Python

Founder

Aug 2021 to Oct 2023

Learnly

Started as a coding bootcamp focused on problem-solving, Learnly has evolved into a versatile, serverless learning platform for professionals. Utilizing popular LLMs, Learnly enables users to create courses from documents and videos with automated learning checks. The platform includes features like interactive course content, document chats, and auto-generated quizzes. Currently, Learnly operates in maintenance mode, offering free access to its courses and continuing to support learners.

Senior Software Engineer

May 2016 to Apr 2020

Paymentus, Toronto

Next Gen Team - *Jan 2019 to Apr 2020*

- Led a transformative initiative crucial to company growth, significantly enhancing the client onboarding process. Developed a configurable platform that reduced new client integration times from months to minutes. Allowing client onboarding to build custom flows, test and deploy to production without development efforts
- Led the creation of a domain model engine that allows stakeholders to define new clients business domain models through a configuration tool. This engine is used as the backbone for CRUD operations, data integration, and defining new UI flows across channels (web, mobile, email, SMS, etc.)
- Spearheaded development of a UI rendering engine, that facilitated building customized flows via drag & drop and serving them in production

Client Development Team - *May 2016 to Dec 2018*

- Led development of multi-channel bill payment solutions (portals, IVR) with secure financial system integrations, PCI compliance, and single sign-on for diverse clients.
- Championed a staged migration from monolithic architecture to containerized SOA for improved scalability and maintainability.
- Delivered innovative solutions like payment chatbot & voice-enabled IVR through rapid PoC development.
- Technologies used: Java, Spring, Javascript, Node, React, HTML, CSS, S3, Oracle DB, Tomcat, DailogFlow, Google Cloud APIs, Microsoft LUIS, Struts, PL/SQL, Docker, AWS, Asterisk, Nginx, OCR

Cofounder - (Volunteer work)

May 2016 to Present

Hoopo

Co-founded Hoopo (social enterprise) to empower impoverished communities through self-sustainable solutions and job creation. Developed a donation and investment portal generating $200k ARR, furthering Hoopo's mission of breaking the cycle of poverty.

Lead Technical Consultant (Contract)

Sep 2018 to Nov 2018

iQonsulting, Toronto

Process re-engineering initiative for a healthcare marketing organization, delivering a 50% efficiency boost. Collaborated with the team to document current workflows and design a future state utilizing automation and automated data architecture. Weekly presentations ensured alignment with the executive team.

Cloud Developer

Sep 2015 to May 2016

Clearwater Clinical, Ottawa

Empowered doctors with a secure web portal (ReactJS) to share notes, media, and collaborate. Built mobile solutions for a unique hearing test app (iPad) designed to replace expensive equipment, improving accessibility for underserved communities. Leveraged RESTful APIs, React, d3 for interactive dashboards, and automated reporting to streamline workflows.

Mobile Application Developer

Jan 2015 to Apr 2015

Telepin Software, Ottawa

Developed the Android application for Telepin's mobile money management solution, enabling secure mobile payments. Introduce automated testing scripts for Android apps, web applications, and USSD menus.

Technical Consultant & Full Stack Developer (Contract) *Sep 2012 to Jan 2015*
Agile Governance Services, Toronto

Built a secure, user-centered community portal for local organizations. This platform empowered chapter owners to manage forums, create pages, and connect with their communities. I played a key role in architecting the solution, gathering user requirements, and suggesting technology improvements.

Education

BASc in Software Engineering with Engineering Management *Sep 2012 to Apr 2016*
University of Ottawa

- Academic Director - Software Engineering Student Association

AI Certificate *Sep 2021 to Apr 2023*
University of Toronto

- Machine Learning - Sep - Dec 2021
- Reinforcement Learning - Jan - Apr 2022
- Deep Learning - Jan - Apr 2023

Machine Learning *Sep 2018 to Dec 2018*
Stanford University - Coursera

Foundations of Enterprise Architecture *Sep 2018 to Dec 2018*
University of Toronto