Michael Kirschbaum

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WORK EXPERIENCE

Arturo Intelligence
Remote • 07/2024 - 03/2025

Senior Fullstack Engineer

- Built AWS Step Functions and Lambdas to orchestrate geospatial data pipelines, integrating with batch AI inference systems and automating ML processing at scale.
- Designed and maintained a scalable GraphQL API (AppSync + Lambda) with JavaScript serving real-time AI-generated property insights with <2s latency.
- Used Terraform to provision AWS infrastructure (AppSync, Lambda, Step Functions, S3), enabling version-controlled, reproducible deployments.
- Built a RAG pipeline for image-derived property attributes, leveraging LangChain, OpenAI embeddings, and pgvector to enable LLM summarization.

Ford Motor Company
Remote • 01/2021 - 02/2024

Software Engineer

- Developed the Ford Credit mobile app using React Native and deployed to iOS and Android app stores.
- Integrated Kotlin microservices with existing Java services and Spring Boot APIs, supporting real-time lease management and account updates.
- Designed and maintained CI/CD pipelines using Jenkins and Docker, supporting secure mobile builds, artifact delivery, and test automation.
- Managed code signing, provisioning profiles, and environment configurations to streamline releases across dev, staging, and production environments.
- Implemented OAuth 2.0 and JWT-based authentication to protect user data and enforce secure API access.

Nike, Inc
Beaverton, OR • 10/2017 - 10/2020

Software Engineer

- Developed internal tools for visualizing and reducing emissions across Nike's manufacturing processes using React, Typescript, and Emotion.js.
- Migrated legacy supply chain forecasting systems to modern React + GraphQL architecture, improving analyst efficiency and reducing manual workflows.
- Designed and implemented GraphQL schemas for real-time data consumption across frontend dashboards.
- Built and maintained backend services using Node.js, supporting API communication between UI and internal product testing databases.
- Contributed to Nike's innovation pipeline by engineering tools used to validate and test new sports products across R&D teams.

Carfit
Portland, OR • 02/2017 - 10/2017

Mobile Engineer

- Built a React Native mobile app for real-time automotive monitoring and diagnostics, supporting both iOS and Android platforms in a startup setting.

Full-Stack Engineer with 7+ years of experience building scalable infrastructure, full-stack applications, and CI/CD systems across startups and enterprise teams. Proven ability to deliver cloud-native pipelines, orchestrate distributed compute workflows, and integrate real-world data into production systems. Recent focus on AI infrastructure and MLOps, with hands-on experience in AWS Step Functions, Terraform, Lambda, and API development.

SKILLS

AI/ML: LLM Integration, LangChain, OpenAI, pgvector

Languages & Frameworks: Python, TypeScript, React, GraphQL, Tailwind CSS, Kotlin, FastAPI

Cloud & MLOps: AWS (Lambda, Step Functions, S3, API Gateway, AppSync, SQS, SageMaker), Terraform, Docker, CI/CD, IaC

Data: PostgreSQL, DynamoDB, Redis, NoSQL

Methodologies: OAuth2.0, TLS/SSL, TDD, Agile, Sprint planning, Code Reviews

EDUCATION

Clemson University

B.A. in Computer Science, minor in Architecture

Clemson, SC

06/2016