

Dusty Mumphrey

Senior Software Development Engineer – Full Stack

Austin, TX

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Full-stack Senior Software Engineer with 8+ years building high-performance, real-time systems using React, TypeScript, Node.js, and AWS. Proven track record architecting low-latency event-driven platforms, optimizing UI performance for responsive user experiences, and designing scalable APIs. Passionate about solving complex problems that deliver measurable impact for users and communities.

Motivated by tackling unknown problems and delivering overwhelmingly impactful solutions. Thrives in high-performance, collaborative environments where urgency meets technical excellence—excited to help make communities safer through Flock's mission-driven platform.

CORE COMPETENCIES

- React
- AWS
- API Design
- TypeScript
- Kubernetes
- Real-time Systems
- Node.js
- Docker

PROFESSIONAL EXPERIENCE

Full Stack Software Engineer / Data Scientist

Sep 2025 – Present

GovStar

Remote

- Architected event-driven queues to ingest, preprocess, and normalize data in Neptune, enabling real-time reporting and eliminating manual uploads for CBP, ICE, and FEMA systems supporting millions of users
- Developed and implemented automated reporting pipeline using Python and AWS, replacing labor-intensive manual process and saving hours weekly for analytics teams across multiple federal departments
- Drove infrastructure modernization from legacy systems to cloud-native architecture using AWS, empowering analysts with self-service BI and interactive dashboards for mission-critical data

Senior Engineer

Feb 2024 – Jun 2025

DealerOn

Remote

- Led team of 7 developers to improve test coverage across 10 micro-apps from 50% to 85% in 6 weeks, adding 50-75 meaningful tests per app and enforcing SonarQube coverage gates—averting multi-million-dollar billing issues
- Designed and implemented event-driven personalization engine using TypeScript, React, and Azure Service Bus powering dynamic vehicle recommendations, increasing dealership acquisition rates by 20%
- Containerized microservices with Docker, streamlining deployment and scalability across engineering organization while reducing deployment time by 30%
- Pitched, designed, and rolled out 'For You' personalization feature—delivering three stakeholder presentations, driving architecture adoption, and achieving 87% dealer enrollment unlocking new revenue stream
- Integrated Azure services (PostgreSQL Flexible Server, Service Bus) for scalable data workflows supporting thousands of concurrent users

Full-Stack Engineer

Nov 2022 – Feb 2024

Clockwork

Remote

- Built reusable architectures for cross-platform admin portals in React and Vue.js, integrating with .NET and Flask backends to support multi-region user workflows for government and insurance clients
- Authored API schemas and sequence diagrams for patient intake and billing flows, enforcing secure JWT authentication and RBAC for HIPAA-compliant systems
- Containerized services with Docker, deployed on Azure Kubernetes Service, and accelerated CI by 30% via caching and parallel builds in GitHub Actions
- Collaborated directly with cross-functional teams to turn requirements into actionable sprints, ensuring seamless on-budget delivery for diverse clients across PHP, .NET, JavaScript, Python, PostgreSQL, and CosmosDB

Reliability Engineer

Jan 2021 – Oct 2022

Vault Health

Austin, TX

- Deployed comprehensive monitoring and alerting for patient billing and lab systems using Python, Flask, GraphQL, and Kubernetes across multi-region clusters, maintaining <1% incident rate for millions of clinical tests weekly
- Built Python and FastAPI services alongside React front-ends, implementing real-time messaging queues for COVID test tracking with WebSocket APIs and managing HL7 data flows for accurate patient portal mapping
- Diagnosed production issues in encrypted data pipelines and Celery tasks, introduced retry logic and circuit breakers improving reliability by 25% for HIPAA-compliant telehealth platforms
- Developed tailored Grafana dashboards to monitor key application metrics, enabling proactive detection and resolution of issues in high-availability clinical systems

Full-Stack Product Engineer

2017 – Present

Freelance / Product Development

Remote

- Personally built and operate 4 live enterprise products as sole engineer: Scrollbook (D&D platform, 1000 active users), ReptiDex (reptile tracking, 137 beta users), Geckistry (genetics research, 1500 views/week, \$4k/month revenue)
- Shipped Scrollbook from idea to beta in 2 months: 6 FastAPI microservices, Next.js 15/React 19 web frontend, PostgreSQL 16, Discord.py bot, AWS CDK infrastructure—all personally designed, developed, deployed, and monitored
- Personally handled all aspects of product development: UI/UX design (Figma), system architecture (microservices, event-driven), full-stack implementation (React/Next.js, FastAPI, PostgreSQL), infrastructure (Docker, AWS/Azure, Terraform)
- Set up comprehensive CI/CD pipelines for all projects (local → dev → staging → prod) enabling rapid iteration with zero-downtime deployments—ship advanced features in 3-4 weeks, routine features in days

PROJECTS

Scrollbook (D&D AI Assistant)

2024

Live D&D platform with Discord bot, web app, and REST API serving 1000+ active users. Shipped from idea to beta in 2 months as sole engineer. Technical architecture: 6 FastAPI microservices, Next.js 15/React 19 web frontend, PostgreSQL 16 with async SQLAlchemy, Discord.py bot, AWS CDK infrastructure, Docker deployment. Demonstrates rapid shipping, full-stack development (design, backend, frontend, infrastructure), and product thinking (RBAC subscriptions, AI usage limits, user feedback loops).

AI-Powered Job Application Chrome Extension

2024

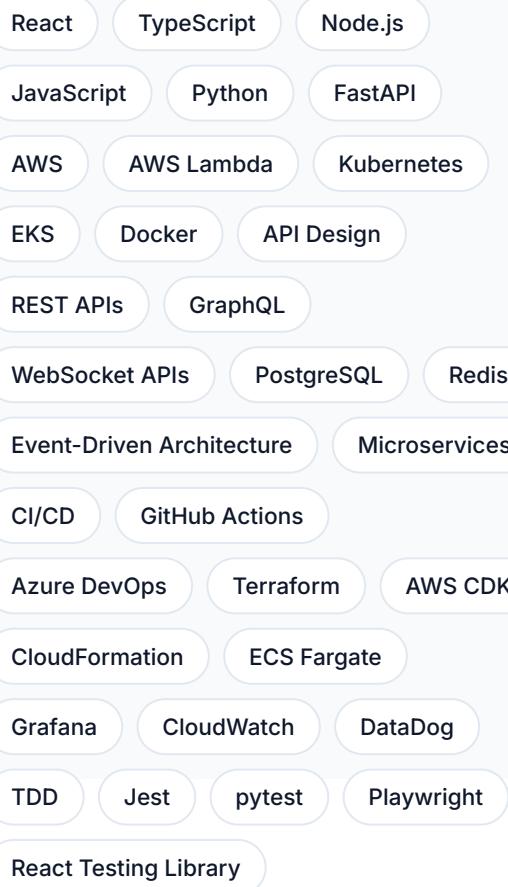
Chrome extension that streamlines job applications by automatically extracting job descriptions from major job boards and generating tailored resumes using AWS Bedrock Claude AI. Features site-specific DOM extractors, context menu integration for one-click generation, real-time status updates with color-coded feedback, and robust error handling. Built with vanilla JavaScript following Manifest V3 standards, integrated with FastAPI backend deployed on AWS ECS Fargate with CloudFormation IaC. Reduces manual copy-pasting and application time by 80%+.

ReptiDex

2024

AI-powered lineage and husbandry tracking platform for reptiles with 137 beta users. Multi-tenant, high-RPS, full-stack microservice architecture featuring AI-driven genetic prediction, payments integration, and real-time community tools. Built with Python, FastAPI, Next.js, PostgreSQL, Redis, Docker, and Stripe. Goal: standardize reptile registration and tracking across the industry through scalable, event-driven architecture.

TECHNICAL SKILLS



EDUCATION

Bachelor of Science in Computer Science
University of Texas at Austin
2019

CERTIFICATIONS

- AWS Certified Solutions Architect – Associate
- Microsoft Certified: Azure Developer Associate