Roilan Roman

Senior Software Engineer

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EDUCATION

University of Florida

Bachelor of Science in Computer Science

Gainesville, FL

2016

EXPERIENCE

Amazon

SDE III (Senior Software Engineer Level 6)

01/2021 - 12/2024

- Designed and implemented Amazon's telehealth service using Java and Spring Boot as the primary backend, deployed on AWS ECS with infrastructure managed via Terraform and CloudFormation
- Developed key features such as scheduling, video meetings (WebRTC), intake form processing, e-prescriptions, and payment handling (Stripe) with React and Redux for the frontend.
- Collaborated on AI-driven features for automated patient routing and predictive analytics, utilizing Python/FastAPI for experimental models and Spring Boot for production-grade services.
- Built RESTful APIs with Spring Boot, ensuring HIPAA-compliance through AWS IAM, OAuth, and JWT for secure communication.
- Leveraged AWS S3 for secure file storage, AWS Lambda for event-driven workflows, and CloudWatch for monitoring and troubleshooting microservices.
- Incorporated Node.js for real-time notifications and specific server-side rendering use cases to enhance performance.
- Optimized service performance and scalability through AWS CloudWatch, and Kubernetes-based deployments.
- Conducted A/B testing on AI and microservices workflows, refining algorithms and system interactions based on user feedback, boosting service effectiveness, and increasing patient satisfaction.

Datadog

Software Engineer

03/2016 - 12/2020

- Worked on Datadog's infrastructure team and developed the Real Time Metrics Systems(Intake, Storage, Query and Web tiers) that collect, process, and visualize data.
- Architected Intake to Storage tier for processing 10TB+/day (1 trillion+ data points) through distributed pipelines with dynamic partitioning for cloud-scale customers using kafka and Java
- Evoluted of partitioning strategy from customer—metric—dynamic kafka sharding to eliminate hotspotting, enabling linear scaling for hyper-volumes (1M events/sec).
- Designed a dynamic kafka partition using composite by calling func mod(n, hash(customerID)) enabling 1:1 mapping between one partition and one customer.
- Built the hybrid data storage system used by in memory on the other of days, and AWS S3 on the other of months and years.
- Cross-functionally collaborated with teams across Backend, Frontend and Data Science and Alerting orgs to design, implement, and deliver improved alerting/monitoring reliability to end-customers during internal incidents.
- Mentored junior developers and continuously improved development processes and code reviews.

Programming Skills

- Backend: Java/Spring Boot, Node.js/Express/Nest.js, Python/Django/FastAPI, Golang, NET, C/C++, SQL, NoSQL, Redis, RESTful APIs, GraphQL, gRPC, OAuth, JWT, Kafka, RabbitMQ, risma
- Frontend: HTML, CSS, JavaScript/TypeScript, React/Angular/Vue, Next.js, Redux, Context API, Bootstrap, Material UI, Tailwind CSS, D3.js, ApexCharts.js
- Database: MySQL, PostgreSQL, MongoDB, DynamoDB
- Testing Frameworks: Unit testing (Jest, Enzyme), E2E testing (Cypress, Playwright)
- Cloud/DevOps: AWS, GCP, Azure, Terraform, Jenkins, CircleCI, Github Actions, Docker, Kubernetes
- Architecture: Microfrontend, Monorepo, Atomic Design, Event-driven
- Other: Mapbox GL, Google Maps API, WebRTC, Swagger, Formik, Webpack, Agile, Restful API, SEO, Figma, Sketch, Adobe, A/B testing, Stripe, React Query, Apollo, DataDog, Amplitude, PagerDuty, Webpack, Google Analytics, Google Tag Manager, Git, Github, Gitlab, Bitbucket, Jira