JUSTINE GEORGE

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SUMMARY

Computer Science Master's graduate with **3.5+ years** as a **Software Engineer** specializing in **scalable backend systems**. Led a team to build an **e-commerce platform** that handled **300% traffic spikes** and implemented **AI-driven personalization** features, increasing **user engagement by 40%**. Developed a **Chrome extension** with **2,500 weekly active users worldwide**. Skilled in **Java, Python, Go, and TypeScript**, with experience in **AWS** and **GCP**, **RESTful APIs**, and **microservices**. Optimized **anomaly response times by 40%** through **cloud infrastructure automation**. Ready to make a measurable impact in **backend** or **full-stack roles**.

SKILLS

- **Languages:** Java, Python, Go, TypeScript, JavaScript, Scala, Kotlin, C/C++, Ruby, SQL, GraphQL, Bash
- **Backend:** Spring, FastAPI, LangChain, Flask, Express, Kafka, gRPC, RabbitMQ, Celery, Ruby on Rails, WebRTC
- **Databases:** PostgreSQL, MongoDB, Cassandra, Redis, DynamoDB, Elasticsearch, Oracle, Vector DBs, NoSQL
- **Cloud & DevOps:** AWS, GCP, Kubernetes, Docker, Terraform, Jenkins, Helm, CloudFormation, Jira
- **Frontend Technologies:** React, Vue.js, Next.js, Redux, Jest, Playwright, Tailwind CSS, HTML

EXPERIENCE

Holiday Channel LLC   **Seattle, WA, USA**
Senior Software Engineer, Full-Stack   *August 2024 - Present*
- Leading a team of 6 developers in architecting a holiday-themed e-commerce platform, implementing an event-driven design to prepare for projected 300% traffic spikes during peak seasons.
- Developing an AI-powered chatbot using LangChain and OpenAI's API, implementing RAG to combine product data and customer purchase history with holiday information, providing personalized gift suggestions for over 5,000 monthly active users.
- Tech Stack: TypeScript, LangChain, OpenAI API, Node.js, Express, PostgreSQL, MongoDB, AWS, React

Resi Media LLC   **Allen, TX, USA**
Software Engineer Grad Intern, Backend   *May 2023 - August 2023*
- Developed scalable RESTful API endpoints using Spring Boot for a prominent charity, serving over 5,000 global partners and processing over a million metadata requests monthly.
- Reduced anomaly response time by 40% through the implementation of a Terraform-automated GCP alert system, integrated with Slack and monitored by New Relic, handling over 1,000 weekly video uploads.
- Designed and implemented an FFmpeg-based feature in the Content Library to efficiently extract M4A audio from MPEG-DASH streams, enabling single-click audio downloads for users, improving accessibility and user experience.
- Tech Stack: Java, Spring, Docker, GCP, Terraform, Cassandra, Redis, New Relic, TestNG, FFmpeg, DASH

Oracle   **Bengaluru, Karnataka, India**
Software Development Engineer, Full-Stack   *August 2019 - July 2022*
- Engineered over 30 RESTful API endpoints using Spring Boot and Spring Batch for Oracle's core banking platform, improving end-of-day transaction processing efficiency by 40% for over 900 global banks.
- Achieved 95% faster creation of Flyway SQL migration scripts for a key banking project by developing a Python CLI tool, which was adopted by multiple teams across the organization.
- Improved page load times by 60% by developing responsive UI components using JavaScript for a React-based SPA, achieving marked gains in FCP and TTI performance metrics over the original Knockout.js architecture.
- Optimized app architecture by simplifying data fetching processes and removing 50 redundant wrapper components, leading to a 40% reduction in Docker image size and faster build times.
- Conducted over 350 code reviews and collaborated with cross-functional teams to enhance code reliability and product functionality, resulting in a 20% reduction in technical debt.
- Tech Stack: Java, Spring, Python, Docker, SQL, Oracle, Redis, JUnit, Mockito, Selenium, React, JavaScript

EDUCATION

University of Texas - Dallas   **August 2022 - May 2024**
Master's, Computer Science   *GPA: 3.72*
- Courses: Algorithms & Data Structures, Distributed Systems, Operating Systems, Database Design, Machine Learning

National Institute of Technology Calicut   **July 2015 - May 2019**
Bachelor's, Computer Engineering
- Courses: Data Structures, Computer Networks, Intelligent Systems Design, Object-Oriented Programming

PROJECTS

VectorDB-LLM Query Engine - _Link to project_   _September 2024 - Present_
- Implemented a RAG-based document query system using LangChain and OpenAI's API, enabling natural language searches with streaming responses, increasing retrieval accuracy by 65% and enhancing UX.
- Designed and implemented a vector database creation pipeline with ChromaDB, processing 10,000+ markdown documents into a searchable knowledge base, increasing information accessibility by 80%.
- Tech Stack: Python, LangChain, OpenAI API, ChromaDB, Vector DBs, Retrieval-Augmented Generation (RAG)

Nexus - Decentralized Messaging Service - _Link to project_   _July 2024 - Present_
- Engineered a decentralized messaging service using Go and WebRTC for peer-to-peer communication, secured with end-to-end encryption via TLS, eliminating the need for centralized servers.
- Deployed a distributed directory service with gRPC on Kubernetes, enabling efficient peer discovery and managing peer churn, while ensuring scalable and resilient system performance.
- Tech Stack: Go, WebRTC, Docker, gRPC, Kubernetes, TLS

BookFellow – Social Media Web App - _Link to project_   _March 2023 - Present_
- Utilized AWS Lambda triggered by SNS notifications for event-driven processing, enhancing scalability and operational efficiency by handling user activity tracking, automated moderation, and notification handling.
- Developed secure authentication and role-based access control (RBAC) using Spring Security and OAuth2, ensuring proper access control and data protection.
- Tech Stack: Java, Spring, PostgreSQL, Next.js, AWS (EC2, S3, SNS, Lambda)

TabKeeper (Featured Chrome Extension) - _Link to project_   _July 2023 - Present_
- Achieved 4,500 installs and 2,500 weekly active users by developing the extension with React, and enabling sync across Chrome desktop browsers with Cloud Firestore.
- Boosted store rating to 4.9 stars and increased user adoption by 91% by adding multilingual support with i18next and localizing the extension.
- Tech Stack: TypeScript, React, Redux, Cloud Firestore, Emotion CSS, Vitest