

Gihan Gunarathne

Senior Software Engineer

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Professional Summary

Full Stack Software Engineer with nearly 7 years of experience specializing in Python, FastAPI, Flask, React, and TypeScript, alongside strong experience in Java and Spring Boot. Experienced in developing SaaS and fintech products, with a strong understanding of software architecture and design patterns. A collaborative team player known for quickly adapting to new technologies and delivering high-quality solutions across insurance, restaurant management, and real estate domains.

Technical Skills

- **Languages:** Python, Java, TypeScript, JavaScript
 - **Backend:** FastAPI, Flask, Spring Boot, REST APIs, Microservices
 - **Frontend:** React.js, TypeScript, Redux, HTML, CSS
 - **Databases:** PostgreSQL, MySQL, Redis
 - **AI & LLM:** OpenAI, Gemini, DeepSeek, LangChain, LlamaIndex, RAG Pipelines
 - **Authentication:** Keycloak, AWS Cognito User Pool, 2FA
 - **Integrations:** Autotask, Stripe, Authorize.net, SendGrid, Twilio
 - **Cloud & DevOps:** AWS (EC2, S3, RDS), Azure App Service, Azure Key Vault, Docker, Git, GitHub Actions, CI/CD
 - **Development Tools:** Cursor, IntelliJ IDEA, VS Code, pgAdmin, Postman
 - **Other:** Agile/Scrum, Software Architecture, Design Patterns
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Professional Experience

Full Stack Engineer

Nov 2025 – Present

Uptime, United Kingdom (remote)

- Developed Python FastAPI services for a ticketing platform used by 200+ users across US, UK, New Zealand.
- Integrated Autotask with AI-based ticket scoring for priority and agent assignment.
- Designed REST APIs and automated ticket workflows.
- Dockerized services with GitHub Actions CI/CD and Azure App Service deployment.
- Implemented Partner Portal authentication, authorization, and 2FA.

Senior Software Engineer
UNIVISER, Colombo, Sri Lanka

Jun 2023 – Oct 2025

- Migrated a monolithic Laravel system to Java Spring Boot microservices for around 1,000 active clients.
- Implemented multi-tenant architecture and AWS Cognito for secure and scalable user management.
- Developed REST APIs consumed by a React.js frontend and optimized PostgreSQL performance.
- Mentored junior developers and conducted regular code reviews to uphold engineering best practices.

Software Engineer
atlacarte, London, United Kingdom (remote)

Jun 2022 – Jul 2023

- Developed a modular Java backend integrating Oracle Symphony for seamless POS and venue operations.
- Designed and implemented a Python Flask application for an LLM-based AI ordering assistant using the OpenAI API, including custom prompt engineering and context handling for dynamic user interaction.
- Applied foundational LLM principles (prompt chaining, temperature control, role conditioning) to enhance assistant accuracy and responsiveness.
- Containerized and deployed services using Docker, with scalable infrastructure on AWS Elastic Beanstalk, DNS via Route 53, and CDN setup with CloudFront.

Full Stack Engineer
Bueno, Miami, United States (remote)

Jan 2020 – May 2022

- Built Java Spring Boot APIs for hotel/tour data from 7+ GDS systems and Google Ads CRM integration.
- Integrated SMS gateways, payment platforms, and bulk email servers for marketing and client outreach.
- Delivered travel apps and landing pages using PHP, React.js, HTML/CSS/JS, and Figma.

Education

BSc Engineering (Hons) in Computer Engineering
Faculty of Engineering - University of Peradeniya, Sri Lanka
Graduated with Honors, GPA: 3.25/4.0

Dec 2015 – Jul 2020

G.C.E. Advanced Level (Physical Sciences Stream)
Kingswood College, Kandy, Sri Lanka

Jan 2003 – Jul 2014

Passed with grade "A" for all main subjects, achieving Z-score of 2.3968 (Island Rank: 176)

Projects & Open Source Contributions

Agri Operations AI Platform (Crimsons Agri)
app.crimsonsagri.com

2026 - Current

Built a Python and React operations platform with AI automation for production, sales, and cost planning, replacing manual spreadsheets.

- Developed a React dashboard for production, sales, inventory, payroll, and attendance.
- Built Python APIs for sales tracking, cost forecasting, and automated reports.
- Added AI automation to predict operating costs from historical data and reduce manual input.

Real Estate AI Platform – Unit Price Prediction (VIDA)

2025 - 2026

app.thereally.com

Developed a Python Flask application for an ML-driven pricing engine to predict unit prices based on historical sales and unit features, reducing dependency on manual sales input.

- Built an ML-powered platform to predict unit prices based on historical data and features.
- Designed scalable backend with Spring Boot and managed data with PostgreSQL.
- Integrated LLMs (OpenAI) for dynamic email content, document summaries, and client interactions.
- Automated document generation and e-signing via DocuSign API.
- Implemented web scraping scripts to pull real-time market data.

Orinec BoT - AI Based Chat Application

2024 - 2026

Designed and developed an AI-powered chat system for lead capture and automated routing, improving efficiency and response time.

- Built a real-time AI chat system using Python Flask, leveraging a RAG pipeline with LangChain, OpenAI, and LlamaIndex for lead capture and intelligent routing.
- Developed scalable REST APIs in Spring Boot and a dynamic frontend in React.js.
- Designed a flow-control schema for seamless chat logic and automation.
- Managed cloud infrastructure and deployments on AWS, following DevOps best practices.

rc-geographic (NPM Package)

Open Source - Current

npmjs.com/rc-geographic

JavaScript utility for retrieving countries, states, cities, and their coordinates.

- Built utilities to fetch country list, states by country, and cities by state, latitude and longitude.
- Published and maintained as an NPM module.

GeNet: Web-Based Gene Expression Analysis Tool

2020

genet.orizel.com — [IEEE Publication](#)

A user-friendly web application for end-to-end microarray gene expression data analysis, including preprocessing, visualization, clustering, feature selection, prediction, and result validation.

- Developed backend for data processing, prediction, and validation.
- Integrated ML workflows using Python, Flask, and R.

References available upon request.