KARAN PRATAP SINGH

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SKILLS

Programming	Golang, Python, TypeScript, JavaScript, Java, PostgreSQL, Redis, GraphQL
Frameworks	Express.js, Django, Flask, Spring Boot, React.js, Next.js
DevOps	Docker, Kubernetes, Terraform, Jenkins, Amazon Web Services (AWS)

EXPERIENCE

Senior Software Engineer   May 2023 - Present
Guardian Life   *Holmdel, NJ*

- Developed features for Guardian Anytime web application leveraging React.js and Node.js serving over 4 million users.

Software Engineer   Dec 2020 - May 2023
Curebase   *San Francisco, CA*

- Designed scalable REST and GraphQL APIs using TypeScript, Node.js, Redis, and PostgreSQL.
- Led initiative for codebase migration to TypeScript, reducing cost and API latency by 50%.
- Built fault-tolerant, horizontally scalable multi-tenancy for core SaaS product leveraging AWS (ALB, ECS, S3, RDS, SQS, DynamoDB) with a focus on security, GDPR, and HIPAA compliance.
- Utilized Golang, Python, and Terraform to develop business-critical internal tools and simplify SDLC.

Full Stack Engineer   May 2020 - Jan 2021
Smithsonian Institution   *Washington D.C., USA*

- Created a digital asset management platform using React, TypeScript, Node.js, and GraphQL.
- Implemented terabyte-scale data ingestion and streaming with Node.js for over 150 million artifacts.
- Built entire GraphQL data layer and designed client-side enterprise search solution with React.
- Revised CI/CD execution strategy and reduced production Docker container build size by 80%.

Software Developer   Aug 2019 - June 2020
Stewards   *London, UK*

- Implemented event-driven food delivery mobile application with React Native.
- Consolidated internal sales and custom B2B integrations with React and Node.js.
- Overhaul and redesign web applications for clients, achieving over 60% customer retention.

PUBLICATIONS

- Manas Singh, **Karan Pratap Singh** et al. **"System and method for continuous automated threat modeling"**. US Patent Application No. 18230253. Filed Aug 4, 2023.
- **"Learn Go"**, Published Jan 2023, ISBN 979-8-9883975-4-0.
- **"System Design"**, Published Aug 2022, ISBN 979-8-9883975-8-8.

EDUCATION

Bachelors of Technology, Computer Science and Engineering   2017 - 2021
SRM Institute of Science and Technology   *Delhi NCR, India*