Parth Dhawan

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PROFESSIONAL SUMMARY

Software Developer with hands-on experience engineering scalable, data-driven solutions from scratch. Proficient in Go, Python, and JavaScript, with a strong background in Agile methodologies and designing robust systems that enhance user experience and drive business value.

WORK EXPERIENCE

Working Student - Full Stack Development   July 2024 – Present
Infineon Technologies AG   *Dresden, Germany*

- **Engineered** and deployed a **scalable full-stack solution** from scratch, migrating a **legacy workflow** to support **250+ stakeholders** and enhance **UX**.
- Designed and implemented a robust **BPMN**-based **workflow** with complex approvals and **exception handling**, integrating automated **SMTP notifications** for timely communication.
- Managed and optimized **SQL queries** to narrow a company-wide **database** of **over 350 million entries** down to a specific site, enabling data-driven decision-making   .
- Contributed to project savings exceeding **€150,000** by streamlining approval processes and collaborating effectively within **Agile sprints**.

Tech Stack: JavaScript, BPMN, SQL, SMTP

Data Analyst Research Assistant   June 2024
Technische Universität Dresden   *Dresden, Germany*

- Analyzed **High-Performance Computing (HPC)** resource consumption, extracting and processing data from **MariaDB** using **SQLAlchemy**, **NumPy**, and **Pandas**.
- Created time-series visualizations of resource usage, leading to a **40% reduction** in consumption.

EDUCATION

Technische Universität Dresden   Dresden, Germany
Master of Science, Distributed Systems Engineering   *Oct 2023 – Present*
Thesis: Engineering a comprehensive system to secure the software supply chain by establishing a baseline **Software Bill of Materials (SBOM)** from **IMA** metrics and developing a runtime mechanism to detect deviations, utilizing **Golang**, **Docker**, and a **Multipass VM**.

SRM Institute of Science and Technology   Chennai, India
Bachelor of Technology, Computer Science Engineering   *June 2019 – May 2023*

PROJECTS

[AutoBlog]   Oct 2024 – Feb 2025 ,

- Engineered a scalable back-end system for an AI-powered blog automation platform, leveraging the **OpenAI API** and **Notion API** for automated content generation and management.
- Designed and implemented a robust API layer and **MongoDB** database, building secure authentication with **NextAuth.js** and integrating **Stripe** for secure payment processing.
- Orchestrated a system architecture that includes automated workflows, webhook handlers, and server-side rendering (SSR) for improved performance and scalability.

Tech Stack: Next.js 14 (API Routes), Node.js, MongoDB, NextAuth.js, OpenAI API, Stripe.

TECHNICAL SKILLS

Languages: Golang, Python, JavaScript
Frameworks/Libraries: React, Node.js, Express.js, FastAPI, SQLAlchemy, NumPy, Pandas
Databases: MongoDB, MySQL, MariaDB, SQL
Cloud: AWS
Developer Tools: Git, Docker, Kubernetes, Linux, BPMN