Kunal Roy Choudhury

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EDUCATION

SRM Institute of Science and Technology

Kattankulathur, Tamil Nadu

Bachelor of Technology in Computer Science and Engineering; CGPA: 9.24

Aug. 2020 - May 2024

EXPERIENCE

Software Engineer Intern

Sept 2024 – Present

Chargebee

Chennai, Tamil Nadu

- Streamlined data migration with **JOOQ**-powered **scheduler jobs**, optimizing SQL query execution.
- Built and optimized customer data migration, leveraging Env properties for Business Entity mapping.
- Devised an sandbox data clearing system, reducing system overhead by a significant 30%.
- Integrated an adaptive migration validation system in Vue.js, improving MBE configuration accuracy.

Software Engineer Intern

Jan 2024 - Sept 2024

AiDash

Bengaluru, Karnataka

- Refactored a SaaS application into a microservices architecture, boosting deployment speed by 40%.
- Decomposed monolithic components into independent services, enabling better fault tolerance and maintainability.
- Developed a Java microservices framework using Hexagonal Architecture, improving modularity.
- Revamped a scalable SQL pagination system, enhancing query performance by 25%.

Project Intern

June 2023 – July 2023

Power Grid Corporation of India

Guwahati, Assam

- Optimized PHP Server configurations and MySQL queries, reducing database latency by 30%.
- Refactored the Power Grid employee intranet portal, improving system reliability and UX.
- Implemented a structured and better database schema, ensuring 99.9% data accuracy and integrity.
- effectively utilized **APIs** for seamless and efficient synchronization between the website and mobile app.

Projects

SyntaxNest | Node.js, React, JavaScript, Docker, Express.js, Render [GitHub]

 $\mathrm{July}\ 2023$

- Engineered a multi-language code execution API for web applications, decreasing script execution latency.
- Deployed a **Docker-based sandboxing**, ensuring secure and isolated execution of code snippets.
- Enabled seamless execution of Java, C++, and more via POST requests, improving API response time.
- Designed robust error-handling mechanisms to prevent **Cross-Origin errors**, facilitating front-end integration.

File-System Organiser | HTML, JavaScript, NodeJS [GitHub]

Jan 2023

- Built a Node.js-based command-line tool for automated file organization, reducing manual sorting time.
- Formulated and structured a customizable sorting system supporting **metadata-based** classification.
- Leveraged the Node.js File System (fs) module to efficiently manipulate and manage local directories.

GitHub Bot | Python [GitHub]

Sept. 2022

- Created a Python-based GitHub automation bot, streamlining commit processes and reducing manual effort.
- Incorporated the GitHub API for repository updates and leveraged GitPython to manage local repositories.
- Enhanced a fully customizable system, enabling users to automate commits with flexible frequency options.

TECHNICAL SKILLS

Programming Languages: Java, Python, C, C++, SQL, JavaScript, TypeScript Databases: PostgreSQL, MySQL, MongoDB, SQLite, Redis, Firebase Firestore

Frameworks Libraries: React, Node.js, Vue.js, Express.js, Spring Boot, Material-UI, Tailwind CSS, Redux

Cloud DevOps: Docker, Kubernetes, Jenkins, CI/CD Pipelines

APIs Integration: RESTful APIs, GraphQL, WebSockets, OAuth, JWT Authentication

Certifications: AWS Academy Cloud Operations, Private Cloud Management on IBM Power Systems

ACHIEVEMENTS

Secured 2nd position in India's most prestigious Smart India Hackathon 23' organized by the Government of India.