Nithin Sai K J

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EXPERIENCE

Software Analyst Programmer - Contract   May 2024 – Present
Insight SFI Research Centre for Data Analytics, DCU   *Dublin, Ireland*

- Fine tuning Mistral 7B model on LlamaCpp to provide personalised insights and risk advice
- Implemented a WebSocket server in Go for real-time communication, serving both mobile and web platforms
- Secured user sessions with hybrid cryptography (RSA + AES), enforcing single-device login
- Developing cross-platform solutions using Flutter and Dart, reducing codebase by 30%
- Streamlined CI/CD pipelines with GitHub Actions, reducing deployment time and improving release frequency
- Building and maintaining an admin portal in React and Next.js for efficient user management

Integration Engineer   Feb 2023 – Aug 2023
Setu   *Bangalore, India*

- Managed 400+ AWS Lambda microservices, ensuring 99.95% uptime during on-call rotations
- Created a Golang CLI tool that reduced new engineer onboarding time from 2 weeks to 3 days
- Engineered a reverse proxy system that decreased AWS lambda request failures from 5% to 0.5%
- Optimized logging with AWS CloudWatch and ElasticSearch
- Led the integration of Bharat Bill Payment System for 20+ businesses, processing $10M+ in transactions monthly

Integration Engineer   May 2022 – Feb 2023
HashedIn by Deloitte   *Bangalore, India*

- Led a 4-person team to develop and deploy a secure logging portal for Mulesoft ecosystem in 4 months
- Developed a React frontend with role-based access control for secure log viewing and management
- Designed RESTful APIs in Mulesoft v4 following API-led architecture
- Created and managed database APIs

EDUCATION

Dublin City University   Sep 2023 – Sep 2024
M.Sc. Computing and Artificial Intelligence - **First Class Honours**   *Dublin, Ireland*

Atria Institute of Technology   Aug 2018 – May 2022
B.E. Computer Science - **First Class Honours**   *Bangalore, India*

SKILLS

Languages: C++, TypeScript, Dart, Go
Frameworks: React, Node.js, Flutter, Next.js, Gorilla
Databases: SQL, MongoDB
Tools & Technologies: AWS, Docker, Git, GitHub Actions

PROJECTS

Guild | *C++, Make, cURL, openSSL*   Feb 2024 – Present

- Built an open-source C++ tool to streamline project setup for developers.
- Used command invoker pattern to handle modular commands and flags.
- Added detailed logging for enhanced debugging and user feedback.
- Developed file system utilities to automate project structure setup.
- Enabled comprehensive CLI support for initializing, building, and running projects
- https://github.com/ninjaasmoke/project-guild

Image Search Engine | *Go, InceptionV3, BM25, VSM*   Sept 2023 – May 2024

- Developed a scalable image search engine processing 100,000+ images with 90% accuracy
- Implemented VSM and BM25 algorithms, achieving sub-second query response times
- Optimized indexing, reducing storage requirements by 40% while maintaining performance
- Built a web crawler in Python to efficiently scrape and index images from sites like Unsplash
- https://searchim.azurewebsites.net/