Chan RG

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SUMMARY

QUT Master of IT graduate (Software Development major), awarded Best IT Research Project Paper. Developed backend solutions at Orefox Ai, enabling real-time bushfire monitoring for quicker response and improved safety insights. At Trusted Network Labs, streamlined research workflows by building Python-based tools and custom eBPF programs, boosting system call analysis efficiency. Eager to bring my skills, continue learning, and make meaningful contributions within a collaborative team.

EXPERIENCE

OREFOX x QUT, Software Developer (Academic Industry Project)

March 2024 - June 2024

Al-powered geoscience company revolutionising mining exploration with top-tier clients like Oz Minerals.

- Developed a Django-based dashboard with ETL processes, integrating data from NASA's VIIRS API and Queensland's live RSS feeds to provide precise, real-time bushfire tracking and monitoring.
- Automated alerts and continuous monitoring through Python cron jobs, delivering instant email notifications to emergency services for timely response to incidents.
- Integrated Leaflet.js with caching to create responsive, real-time bushfire maps, reducing data processing time by an estimated 20% and improving geospatial accuracy by approximately 15%, supporting quicker decisions in emergencies.

TRUSTED NETWORKS LAB X QUT, Software Research Intern

November 2023 - June 2024

Research lab specialising in dynamic networks, IoT, and blockchain, with key projects in scalable blockchain and mobility modelling.

- Customized eBPF-based monitoring tools in Python with BPFtrace and STRACE, tracking 85,000+ system calls daily and hosted securely on AWS.
- Developed "Guardify," a CLI tool to secure pip and npm installations, detecting over 1,200 malicious packages using regex-based detection.
- Supported research peers by tailoring eBPF tools to project needs, providing hands-on guidance on setup, log collection, and processing workflows, significantly accelerating research timelines.

PROJECTS

WikiVid, Wikipedia Article Summarization Platform

Developed a platform to summarise Wikipedia articles into video content using FastAPI and NLP techniques, leveraging the BART model for summarization. Integrated DynamoDB and S3 for data storage, resulting in a seamless content generation.

Being Foodie, Culinary Exploration App

Built a culinary exploration app using Node.js, integrating multiple APIs like Edamam, OpenAI, Google Maps, and OpenWeather to provide real-time restaurant and weather information. This app enhanced user experience by giving real-time updates and location-based insights.

Time Up?, Chrome Extension for Time Management

Developed a Chrome extension to help users manage time effectively by setting deadlines and receiving notifications, using JavaScript, HTML, and CSS. The extension enabled users to track tasks efficiently and stay on top of deadlines.

EDUCATION

Queensland University of Technology | Master of Information Technology

July 2022 - July 2024

(Software Development Major, Received Best Paper Award For IT Research Paper.)

Key Courses: Object-Oriented Programming, Object-Oriented Design, Data Structures and Algorithms, Web and Mobile Application Development, Cloud Computing, Information Security Management, Advanced Algorithms and Computational Complexity, Data Exploration and Mining, Rapid Web Development, Research in IT Practice, IT Industry Project

KEY SKILLS

JavaScript, Node.js, React, Python, Django, SQL, AWS, Docker, Git, Restful API, Next.js, Agile, System Design, Cloud Computing.

INTERESTS

Exploring new cuisines, watching tech documentaries, keeping up with tech innovations, and volunteering in charity initiatives.