

# Chan RG | Software Developer

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**LinkedIn:** [linkedin.com/in/rgcsekaraa/](https://www.linkedin.com/in/rgcsekaraa/) | **Portfolio:** [www.sekaraa.com](http://www.sekaraa.com) | **Github:** [@rgcsekaraa](https://github.com/rgcsekaraa)

## SUMMARY

Software Developer with over a year of hands-on experience in Full Stack Development and system monitoring through academic and industry projects. A QUT Master of IT graduate, awarded Best IT Research Project Paper. Gained experience in developing data-driven applications and research tools at Orefox AI and Trusted Network Lab. Eager to continue learning, grow professionally, and contribute to collaborative teams by embracing new technologies and solving complex problems.

## KEY SKILLS

**Proficient:** Typescript, React.js, Python, Django, Node.js, Express.js, SQL, Git, HTML, REST API, Tailwind CSS

**Working Knowledge:** FastApi, Symfony, Next.js, NoSQL, Angular.js, Redis, Docker, AWS, Linux.

## EXPERIENCE

**TRUSTED NETWORKS LAB X QUT**, Research Software Assistant Nov. 2024 – Feb 2025  
*Research lab specialising in dynamic networks, IoT, and blockchain, with key projects in scalable blockchain and mobility modelling.*

- Collaborated with researchers to develop a real-time energy monitoring solution for QUT's H2Xport project, providing researchers with a user-friendly dashboard to visualize live data from solar, battery, and hydrogen systems.
- Took the initiative to design and implement an interactive energy flow visualization using React, HTML5 Canvas, and mapping dynamic data into diagrams to help researchers analyze and optimize energy resource allocation.
- Optimized backend performance by implementing an LRU caching mechanism in Express.js, reducing redundant database queries and improving response times for frequently accessed data.
- Worked closely with a faculty to debug and resolve deployment issues, supporting the containerization process with Docker and successfully launching the system within a strict 4-week deadline.

**OREFOX x QUT**, Software Developer (Academic Industry Project) Mar. 2024 – June 2024  
*AI-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, following a Test-Driven Development approach to ensure data accuracy and system reliability.
- Took ownership of creating a live bushfire notification system by running cron tasks with Celery in Django, improving accuracy and delivering instant push notifications to users when a bushfire is detected within their specific set range.
- Worked with a diverse team of 5, using JIRA to track progress and GitHub to manage the codebase, resolve conflicts, and ensure smooth collaboration throughout the project.

**TRUSTED NETWORKS LAB X QUT**, Software Research Intern Nov. 2023 – June 2024  
*Research lab specialising in dynamic networks, IoT, and blockchain, with key projects in scalable blockchain and mobility modelling.*

- Developed "Guardify," a CLI tool to secure pip and npm installations, detecting over 1,200 malicious packages using regex-based detection.
- Customized eBPF-based monitoring tools in Python with BPFtrace and STRACE, tracking 85,000+ system calls daily and hosted securely on AWS.
- 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 - More Projects on My Portfolio Website ([www.sekaraa.com/projects](http://www.sekaraa.com/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, Ffmpeg for video creation and Integrated S3 for data storage, resulting in a seamless content generation.

## 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 and Design, Data Structures and Algorithms, Web and Mobile Application Development, Cloud Computing, Information Security Management, Data Exploration and Mining.