Luke Banicevic

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Experience

ResMed **Dec. 2021 — Present**
Software Engineer – Product Development *Bella Vista, Sydney*

- Spearheaded the implementation of data post randomization across two critical platforms (written in C++ and Python), positively impacting over 1 million devices. This resulted in a notable reduction in server loads, optimizing system performance.
- Developed an automated device provisioning utility enabling developers and testers to configure devices for any environment with any cellular provider profile, significantly reducing setup time and manual effort across development teams.
- Implemented vector embeddings and LLMs to identify missing test coverage across codebases using semantic matching, enhancing code quality and testing strategies through AI-driven analysis.
- Actively resolve production issues affecting global customers by analyzing Snowflake data queries and Datadog logs, troubleshooting distributed system latency problems for APAC regions and developing comprehensive testing strategies for load balancer optimization.

Deloitte **Nov. 2022 – Feb. 2023**
Summer Vacationer – Platform Engineering *CBD, Sydney*

- Directed a team of 3 interns to architect and deliver a comprehensive cost optimization blueprint for Deloitte's enterprise clients, leveraging AWS services such as Trusted Advisor, Cost Explorer, and Budgets to drive significant cloud cost savings.
- Proactively pursued advanced AWS and microservices expertise through self-driven Udemy coursework, rapidly applying new skills to design and implement a robust, real-world AWS platform engineering project.

UNSW Solar Racing Team – Sunswift Racing **Feb. 2020 – Dec. 2021**
Embedded Software Engineer – Embedded Systems Team *Kensington, Sydney*

- Key contributor to the design and development of embedded systems for UNSW's Sunswift solar car, collaborating with a multidisciplinary engineering team to compete in the 2021 Bridgestone World Solar Challenge.
- Engineered an Autonomous Driving Assistance System utilizing the OpenCV computer vision library in C++, enhancing vehicle safety and performance through real-time image processing.
- Developed and programmed CAN bus nodes for seamless integration with vehicle drive-by-wire systems, delivering reliable and efficient communication protocols in C.

Technical Skills

Programming Languages: C++, C, Python, Java, SQL, JavaScript, Bash/Zsh
Web & Frontend: React, HTML, CSS, REST APIs, TypeScript
Cloud & DevOps: AWS, Terraform, Jenkins, Docker, CI/CD
Tools & Platforms: Git, Linux, Snowflake, Datadog, VS Code

Education

University of New South Wales (UNSW) **Feb. 2018 – Jan. 2023**
B.E Computer Science, B.E (Hons) Mechatronic Engineering *Kensington, Sydney*

- Relevant coursework: Engineering Design 2 (HD), Programming Fundamentals (HD), Database Systems (HD), Object Oriented Design & Programming (D), Data Structures and Algorithms (D)
- Societies: UNSW Solar Racing Team Sunswift, UNSW Heroes Program, UNSW Chess Club

Notable Projects

Personal Website | *React, TypeScript, Next.js, Tailwind CSS*

- Developed a responsive personal portfolio website showcasing projects and professional experience
- Implemented modern web development practices with TypeScript for type safety
- Deployed on Vercel with optimized performance and SEO considerations