

Subrat Shrestha

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Education

University of New South Wales - *Bachelor of Computer Science*

August 2019 - August 2022

Relevant Coursework: Programming Challenges, Web Frontend, Operating Systems.

Work Experience

Software Engineering Intern - Earnr

February 2021 - August 2021

- Developed the dashboard application for users to track investments in **React & TypeScript**.
- Implemented API endpoints and new **GraphQL** Queries using **AWS Appsync**.
- Developed automated end-to-end tests for the frontend using **Cypress**.
- Reconstructed React landing page to a **webflow** project for easier modification.

Projects

Neural Stimulator

- Designed the firmware and software (**C** and **Python**) for a wireless neural stimulator.
- Reduced power consumption by 40% by optimizing task allocation and scheduling.
- Implemented pulse generation and neural recording functionality using a DAC and ADC.
- Developed wireless communication functionality using Bluetooth Low Energy.

Traffic Signs

- Built a deep neural network model capable of classifying images of traffic signs into different categories in **Python** using **Keras**.
- Trained the model using the German Traffic Signs Recognition Benchmark.
- Calculated accuracy of 95%.

Big Brain

- Developed a fullstack Kahoot-style game in **ReactJS**, and **websockets**.

Skills

Languages: JavaScript, TypeScript, Python, C++, C, Java, Perl.

Tools/Frameworks: React, GraphQL, AWS, Angular, FreeRTOS.

Student Societies

CSESoc Media:

- Podcast with Dr. Gernot Heiser: Talking to the John Lions Chair of Operating Systems about Operating Systems, Kernels, his company, and his work on the SeL4 microkernel.
- Podcast with Vincey Au: Talking to a data analyst from Canva about data analytics, analytics engineering, Canva, and how she got there.

Awards

Metlife Foundations Scholarship: for exceptional academic performance.