

Subrat Shrestha

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Education

UNIVERSITY OF NEW SOUTH WALES | BACHELOR OF COMPUTER SCIENCE

AUG 19 – AUG 22

Relevant coursework:

Web Frontend Programming, Programming Challenges (competitive programming), Operating Systems, Security Engineering and Cybersecurity.

Skills

LANGUAGES: TypeScript, JavaScript, C, C++, HTML, CSS, Python, Java, Perl, Bash.

TOOLS/Frameworks: React, GraphQL, NextJS, AWS (AppSync, DynamoDB), Angular, FreeRTOS.

Experience

EARNR | SOFTWARE ENGINEER INTERN

FEB 2021 – OCT 2021

- Reconstructed the **React** and **TypeScript** signup/onboarding application to use **Formik** to allow for easier modification of queries.
- Implemented Bonus code functionality by adding new attributes to the **DynamoDB** database and creating new **GraphQL** queries with **AWS AppSync**.
- Developed automated end-to-end tests for the frontend using **Cypress**.
- Converted the React landing page to a **Webflow** project allowing non-developers to make quick changes to the marketing content.

Projects

NEURAL STIMULATOR

- Redesigned and developed the firmware for a wireless neural stimulator in **C** as part of the UNSW Challenging program.
- Reduced power consumption by **40%** by redesigning the component selection, using Bluetooth over Wi-Fi for communication, and optimizing the use of sleep cycles using **FreeRTOS**.
- Implemented pulse generation and neural recording features using a **DAC** and **ADC**.
- Reimplemented wireless communication functionality using **Bluetooth Low Energy**.

PERSONAL WEBSITE

- Developed a portfolio website in **React** using **TypeScript** and **NextJS** to showcase personal projects and work.

Student Societies

CSESOC MEDIA

- **PODCAST WITH DR. GERNOT HEISER:**
Spoke with the John Lions Chair of Operating Systems about Kernels, Operating Systems, his company, and his work on the Sel4 microkernel.
- **SETUP GUIDE:**
Wrote an article for first year computer science students to help them set up required software to prepare for first year courses.
- **PODCAST WITH VINCEY AU:**
Talked to a data analyst at Canva about Canva, her work there, data analytics, analytics engineering, and her advice on getting into the industry.
- **PERSONAL PROJECTS PODCAST:**
Talked to students about the different projects they've been working on and what they're being used for, along with advice/opinions on balancing project maintenance and university classes.

Awards

METLIFE FOUNDATIONS SCHOLARSHIP

For exceptional academic performance.