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), FreeRTOS.

Experience

EARNR | SOFTWARE ENGINEER INTERN
FEB 2021 – OCT 2021

- Developed and tested new **React** components in **TypeScript** for the signup/onboarding application.
- Implemented Bonus code functionality by creating and integrating new **GraphQL** queries with **AWS AppSync** and **DynamoDB.**
- 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 changes to the marketing content.

Projects

NEURAL STIMULATOR

- Developed the firmware for a wireless neural stimulator in **C** as part of the UNSW ChallENG VIP 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 VINCEY AU:**
  Spoke with a data analyst at Canva about Canva, her work there, data analytics, analytics engineering, and her advice on getting into the industry.

- **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.

- **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.