## **Tahsinul Abedin**

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#### **EDUCATION**

#### The University of Sydney

Sydney, Australia

Bachelor of Engineering Honours (Software)

February 2020 – December 2024

• Recipient of Vice-Chancellor's International Scholarship

### WORK EXPERIENCE

**Strong Compute** 

Sydney, Australia

Software Engineer

*August 2023 – November 2023* 

- Spearheaded MONAI medical imaging model development on Instant Supercomputer (ISC) with Python, integrating PyTorch and CUDA.
- Implemented check-pointing for model training continuity and optimisation against benchmarks, enhancing epoch fine-tuning.
- Utilised WSL for ISC terminal access and managed version control via GitHub and Bitbucket for collaboration.

## **Jacaranda Flame Consulting**

Sydney, Australia

Software Developer

December 2022 – February 2023

- Led a team of 5 to develop a concert planning application for iOS and Android using React Native.
- Conducted weekly meetings and directed development according to the client's requirements.
- Implemented user authentication, email verification and Google Maps API to develop trip planning functionality.
- Worked with React, HTML and CSS to implement front-end of the app.

#### **PROJECTS**

## **Honour's Thesis Project**

August 2023 – Present

- Conducted empirical research to analyse the impact of various 'k' value in k-fold cross-validation on the validation performance of supervised machine learning algorithms using open-sourced data.
- Working on providing actionable guidelines for machine learning practitioners on selecting the most effective 'k' value for specific classification tasks, based on empirical evidence and performance metrics.

## Student Scheduler and Mapping website

August 2023 – November 2023

- Developed a web application utilising Java and Spring Boot for backend and TypeScript and React for front-end.
- Integrated FullCalendar.io API for seamless scheduling and Maze Map API for detailed campus navigation.
- Integrated user authentication and asset management system using JSON Web Tokens for security and MongoDB for efficient data persistence.
- Conducted comprehensive testing including unit, component, end-to-end testing with JUnit and Jest.

## **SKILLS**

Python, Java, C, JavaScript, React, TypeScript, Django, Node.js, jQuery, AJAX, SQL, NoSQL, Spring Boot, AWS, JavaFX, CSS, HTML, Bootstrap, R, PyTorch, scikit-learn, Kubernetes, Docker, Agile Software Development and Object-Oriented Programming, Mobile Application development, Full Stack Web Development, Git.

#### **VOLUNTARY WORK**

## **Sydney University Bangladesh Student Society**

Sydney, Australia

President

*April* 2022 – May 2023

- Successfully hosted over 20 events, including inter-university tournaments with over 100 participants and guests.
- Increased members from 50 to 137.

## **Engineering Mentor, Sydney University**

Sydney, Australia

Mentor

January 2021 – May 2021

• Provided support, advice and organised mentoring sessions and group activities for newly joined students.

# **Sydney University Computer Science Society**

Sydney, Australia

International Representative

September 2020 – September 2021

- Facilitated communication between international students and the School of Computer Science.
- Successfully co-hosted over 20 events.

## **REFEREE**

# Dr Shahadat Uddin

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# Partha Majumder

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