# Akshay Varma

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#### EDUCATION

### The University of Queensland

Australia

av10.tech

Bachelors of Software Engineering (Honours), GPA: 5.81/7.00

Feb 2021 - Nov 2022

Courses: Operating Systems, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Machine Learning, Networking, Databases, Compilers and Interpreters, Advanced Human Computer Interaction, Blockchain, Computer Systems Principles and Programming.

Awards: Vice Chancellor's Global Scholar Award for the entire duration of the course.

### International Centre for Applied Sciences, Manipal Institute of Technology

India

Bachelor of Science (Honours) in Applied Sciences, GPA: 3.79/4.00

Aug 2018 - Jul 2020

Courses: Advanced Calculus, Engineering Graphics, Engineering Physics, Analog Electronic Circuits, Computer Organization and Architecture, Discrete Mathematics, Signal Processing.

**Lead Roles**: Foreign Facilitation Secretary - Assisted in credit recognition and course mapping for international universities; Director - Lions Club International Manipal - Led event planning and execution efforts with junior members.

#### EXPERIENCE

### Research Intern - ITEE, UQ

Aug 2022 - Oct 2022

ITEE & School of Business, UQ

Brisbane, Australia

Conducted research on the development of an Internet of Things experimental platform to facilitate Social Science experiments on Sustainability, with a focus on incentivizing sustainable behaviors using blockchain-based tokens. Collaborated with (A/Prof Marius Portmann)(ITEE) and (Prof Sara Dolnicar) (School of Business)

### Research Thesis

Feb 2022 - Nov 2022

Human-Centred Computing, ITEE - UQ

Brisbane, Australia

**Developed cross-platform mobile application**: Designed and developed a mobile application for second language students and lecturers to accelerate learning of discipline-specific course materials in a culturally authentic university environment.

Conducted user research and design iterations: Conducted contextual inquiries, interviews, and co-design workshops using tools such as Figma to gain insights and iteratively refine the application interface.

**Tools and Techniques:** Contextual inquiries, Interviews, Co-design workshops, Figma. The prototype can be found here.

### Data Science Intern

Jun 2019 - Jul 2019

Zeengal Technologies, India

Kanpur, India

**Developed web scraping methods**: Used Python, Requests, and Socket Programming to create efficient and effective web scraping methods.

Handled SQL databases: Created and queried SQL databases to store scraped data.

Tools: Python, Requests, Socket Programming, SQL.

#### Projects

Venue 

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Self-taught project June 2023

Developed a web application to facilitate the reservation of various venues, such as halls, theatres, gymnasiums, libraries, and more. Tailored for schools and organizations to list their available spaces as venues for private events. Implemented features such as credential, Google, and GitHub authentication, image upload using

Cloudinary CDN, client and server error handling, calendars with React Date Range, booking/reservation system using MongoDB Atlas, and creation and deletion of properties. Deployed using Vercel.

Venue was developed as a personal challenge to recreate an Airbnb-like app, showcasing a strong motivation for web development and design. The project highlights the skills and expertise in creating visually appealing and functional web applications..

Tools: React, Tailwind CSS, React Hook Form, React Toast, MongoDB, Cloudinary CDN, Next.js

iPhone Showcase *∂* Link

Self-taught project

April 2023

Developed a website showcasing iPhone 14 using React and CSS. Created an interactive 3D animation with WebGi (powered by Three.js) and GSAP. Optimized the animation for mobile devices, added features like loader and 3D preview functionality. Tested, debugged, and deployed using Netlify.

Tools: React, CSS, WebGi (powered by Three.js), GSAP, postcss, @studio-freight/lenis, Jest, Testing Library

### Image Steganography using Java

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Project

Aug 2019

Developed a program for embedding and decoding messages in images using steganography techniques, utilizing Java's image manipulation libraries and GUI components.

Tools: image manipulation using imageio library and graphical user interface development using Java AWT

### Endless Escape - Design Computing Studio

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Achievements System in a 2D Game

Aug 2021 - Nov 2021

Worked on a creating an achievements and reward system in a 2D Game

Tools: Java with libGDX and Box2D for frontend development, Mockito for testing, SonarCloud for bug and code smell resolution, Github wiki pages for Code Documentation , and the Kanban method and Agile practices project management.

### JourneyLink

Journey tracking and photo management tool

Aug 2022 - Nov 2022

Assisted in designing a web application for journey tracking and photo management using React, NextCloud, and LibrePhotos. Conducted user testing for UI design and evaluation.

Tools: React, NextCloud, LibrePhotos, user testing.

#### Programming Skills

- Languages: C/C++, Java, Dart, SQL, JavaScript, Python, HTML, CSS Version control systems: Git, SVN. etc.
- Technologies: Flutter, Mockito, SonarQube, git, LibGDX, Box2D, Adobe Photoshop, Adobe XD, Java, Figma, React, NextCloud, LibrePhotos, WebGi (powered by Three.js), GSAP, postcss, Jest, Testing Library, Solidity, ONOS, Elastic, Kibana, Logstash Tailwind CSS, Netlify.
- Techniques: System Usability Scale and Technology Acceptance Model, bodystorming, Wizard of Oz testing

#### Extra Curricular

## Leaders@EAIT Gateway program

Semester 2, 2021

Participated in industry networking events to increase engagement with companies like Rio Tinto and demonstrated leadership skills in various industry scenarios.

### Meet a Mentor Program

Semester 2, 2021

Engaged regularly on a weekly basis as a mentee under the mentorship of UQ Alum Timothy Marks, the ex Sr. Director of engineering at Twitter, to learn about management and career development in the tech sector.

#### Student Staff Partnership

Semester 1, 2022

Researched international student engagement platforms as a team of three under Ms. Rachel Crooks' leadership to improve UQ's international student orientation and engagement for EAIT.