Abhinav Sharma

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PROFESSIONAL SUMMARY

Final-year Bachelor of Software Engineering (Honours) student with a WAM of 75 and hands-on experience in full-stack development, embedded systems, and AI/ML. Proven track record of delivering scalable web and mobile applications in agile environments. Skilled in bridging the gap between hardware and intelligent software to solve complex real-world problems. Passionate about Secure System Design, Agentic AI Automation, and Distributed Architectures.

EDUCATION

Bachelor of Software Engineering (Honours) *Exp. Graduation: 2026*
Deakin University *Victoria, Australia*

- **WAM:** 75 (Distinction)
- **Coursework:** Distributed Systems, Secure System Design, AI/ML Foundations, Algorithms.

TECHNICAL SKILLS

Mobile & Web:	React Native, ReactJS, JavaScript (ES6+), HTML5, Tailwind CSS
AI & Machine Learning:	TensorFlow, Python, Federated Learning, Scikit-learn, Agentic AI
Backend & Cloud:	Node.js, .NET Framework, Firebase, REST APIs, Stripe Integration
Embedded & IoT:	Arduino, Raspberry Pi, LoRaWAN, C++, Sensor Fusion
Tools & Methods:	Git, Linux/Unix, Docker, n8n, Agile/Scrum, TDD

EXPERIENCE

Mobile Application Developer Intern *Nov 2025 – Present*
Tecknova IT Solutions *Victoria, Australia*

- Developing a high-performance, cross-platform ticket selling application from scratch using **React Native**.
- Collaborating closely with the web team to synchronize the mobile app with the in-development backend infrastructure.
- Designing clean, intuitive mobile UI components to ensure seamless user experience across iOS and Android.

Web Development Team Lead (Capstone Project) *Apr 2025 – Oct 2025*
DataBytes - DiscountMate *Victoria, Australia*

- Spearheaded a 5-member agile team to engineer a scalable web platform, managing the full SDLC.
- Developed key frontend features (Dashboard, Forecasting) increasing user efficiency by **25%**.
- Optimized API integration, reducing response latency by **30%** for a dataset of 10,000+ products.
- Standardized workflows and mentored 3 junior developers, reducing onboarding time by **40%**.

HONOURS RESEARCH

Unified APT Detection using Machine Learning *In Progress (SIT723/724)*
Research Thesis

- Developing a multi-branch Deep Learning framework to detect Advanced Persistent Threats (APTs) by fusing heterogeneous data (Network Traffic & Host Logs).
- Implementing privacy-preserving **Federated Learning** strategies (FedAvg, FedSVRG) using the **Flower** framework to address data governance in cybersecurity.
- Achieved **99.90% accuracy** in centralized settings and currently optimizing models for non-IID data distributions.

TECHNICAL PROJECTS

Smart LoRaWAN Helmet for Mining Safety *Aug 2024 – Sep 2024*
IoT & Embedded Systems

- Designed an industrial safety wearable using **Arduino** and **LoRaWAN** for long-range communication.
- Integrated biometric and environmental sensors to detect hazardous gases and worker vitals in real-time.
- Built a full-stack admin dashboard to visualize telemetry data and trigger automated emergency alerts.

DevDeakin University Portal *Aug 2023 – Sep 2023*
Full Stack Development

- Architected a content management platform featuring news feeds and subscription services using **ReactJS** and **Firebase**.
- Implemented secure **Role-Based Access Control (RBAC)** to manage hierarchical permissions for students and staff.
- Integrated **Stripe API** for secure payment processing and engineered a custom, responsive UI/UX.

Autonomous Surveillance Robot *May 2023 – Jun 2023*
Robotics & AI

- Engineered a patrolling robot utilizing **C++** and **Raspberry Pi** for autonomous path-following and surveillance.
- Implemented computer vision algorithms to detect hazards (landmines) and stream low-latency video feeds.
- Optimized control logic to ensure real-time responsiveness and fault tolerance during operation.