# Elsa Tsia

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#### Personal Statement

Computer Science professional with a strong interest for full-stack development and AI. Experienced in leading projects and developing MERN stack applications, with ongoing side gigs building AI agents, workflows, and full-stack websites including Shopify and WordPress platforms. Proven ability to quickly learn new technologies and deliver innovative solutions. Eager to contribute technical expertise and project management skills in a professional software development role.

#### EDUCATION

Monash University

Bachelor of Computer Science; Monash Fencing Club

University of Utah

Bachelor of Science in Computer Science

**Bromsgrove School** 

iGCSE/GCSE; national VEX robotics competition; team captain for fencing & U16 table tennis Jan. 2017 - Dec 2019

ISC2 Certified in Cybersecurity (CC)

Clayton, VIC, Australia

Jul. 2023 - Jun. 2025

Salt Lake City, UT, USA Jan. 2021 - Dec 2022

Worcestershire, UK

September 2025

### Work Experience

# Cybersecurity Associate (Contract)

AlphaCloud Pty Ltd

Feb – Jun 2025

- Melbourne, Australia
- Supported security initiatives based on NIST/ISO 27001 frameworks, applying principles of risk management and access control to evaluate security controls and infrastructure protection.
- Assisted with creating Visio diagrams to visually map security processes, enhancing team understanding and communication.
- Improved documentation accuracy by proofreading security policies and reports, ensuring clarity and compliance.
- Gained hands-on exposure to offensive and defensive operations, including vulnerability assessment, penetration testing concepts, and incident response methodologies.

IT Intern Nov 2023 – Feb 2024

- TK Elevator Sydney, Australia • Gained comprehensive insight into corporate IT infrastructure, project management methodologies, and ITSM
  - Provided L2 Technical Support by troubleshooting, performing software updates, and configuring hardware, while assisting staff with technical issues, enhancing overall workplace tech proficiency.
  - Attended weekly HR and IT meetings to discuss milestones and track progress of current projects.

tools including **SAP** and **ServiceNow** through shadowing a Business Analyst.

- Renovated the team's project management tracker from Excel to Asana, streamlining workflows and improving project oversight for the IT department.
- Successfully completed a critical data migration project, transferring employee information from SharePoint to Expedo within one month, enhancing HR data management efficiency.

**Private Tutor** June 2024 - 2025

Self-Employed

Vancouver, Canada

- Tutoring a Grade 9 student in sciences, maths, English and French, enhancing their understanding and academic performance in these subjects.
- Engaged with following soft skills: effective communication, patience, empathy, adaptability, problem solving, organisation, strategic thinking, resillience.

Languages: Java, C#, MATLAB, Python, SQL, XML, HTML & CSS, C/C++, JavaScript ES6, Typescript, Haskell Frameworks & Libraries: React, Node.JS (Express), TailwindCSS, HeadlessUI, JUnit, .NET, MAUI.NET, Angular, Spring Boot, OpenMP, OpenMPI

Databases: Oracle DMBS, MongoDB Atlas, MySQL, PSQL

Developer Tools: GitHub, GitLab, VS Code, Visual Studio, IntelliJ, Eclipse, Figma, Wireshark, AWS, Netlify, Render, Docker, Cursor

Expertise: Full-Stack Dev, Project Management, OOP, Advanced Data Structures & Algorithms, Databases, Functional Reactive Programming, Networking, Parallel Computing, Image Processing, Computer Vision, Excel Spoken Languages: English, French, German, Mandarin, Cantonese

**Fencing**: Monash Fencing Club - UniSport 2023: 3x bronze medalist for team, 1x gold Epee medalist; U14–U18 West Midlands representative for Epee and Foil; Hereford & Worcester County Champion U16 & U18

#### Projects

Lotion | Swift, Xcode Sep. 2025

• iOS mobile app for advanced productivity tracking. Features include smart lists with dynamic filtering, time blocking with calendar integration, quick task capture via Siri shortcuts, collaborative shared workspaces, and an analytics dashboard for personal insights. Additional functionalities include mood and energy tracking, a Pomodoro focus timer with ambient sounds, location-based reminders, and voice note recording with transcription.

#### Zahara | MongoDB Atlas, Express.js, React, Node.js, Stripe

Sep. 2025

• A full-stack e-commerce application for a high-end modest activewear brand. The app features a responsive and elegant user interface built with React and styled using Tailwind CSS, reflecting a minimalist, luxury aesthetic. The backend is a robust RESTful API built with Node.js and Express, which connects to a MongoDB database to manage product, user, and order data. The application includes core e-commerce functionality, such as a product showcase, a shopping cart, and a checkout system, with secure payment processing handled by Stripe.

UniFlow | MongoDB Atlas, React, Node.js (Express), Docker, AWS EBS, Netlify

Jul 2024 – June 2025

- Led a team as **Project Manager** for a Capstone project, employing **Agile** scrum methodology to develop a client-facing task management software for university group assessments.
- Established and maintained CI/CD pipelines using GitHub Actions, automating build, test, and deployment
  processes for the full-stack web application.
- Implemented user authentication with secure JWT-based access, ensuring data protection.
- The software includes features such as task assignment, tracking, task collaboration, Calendar and Gantt chart view.

Databases | SQL Jan. – Feb. 2024

- Used SQL to implement a small database in the **Oracle RDBMS** for Monash Art Gallery and carried out DML commands and make specified changes to the database structure.
- SQL and NoSQL to write queries to produce specified output and use PL/SQL to enforce business rules. Also used MongoDB to write non-relational queries.

#### Convolutional Neural Network (CNN) | MATLAB

May - Jun. 2023

 Used MATLAB's Deep Learning Toolbox to build CNNs from scratch for two tasks using Oxford's Flower Dataset.

#### Finding Plants | MATLAB

Mar. – Apr. 2023

• Using **image processing** techniques, I designed and implemented a program to output a binary image marking regions corresponding to plant material.

## Snake Game $\mid C\#$

Oct. – Dec. 2022

- Applied the MVC design with event handling to create a user-friendly GUI using MAUI.
- Additionally, built a networked software system using the client-server concept and advanced networking APIs and protocols including TCP and IPv4.
- Implemented an API to store game data using SQL.

# $\mathbf{Spreadsheet} \mid \mathit{C\#}$

Aug. – Oct. 2022

• Designed and developed a complex Spreadsheet software using concurrent programming and modern software development tools.