Sebastian Skontos

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EDUCATION

The University of Sydney 2022 – Present
Bachelor of Engineering Honours (Software)

- Engineering Honours WAM of 83.2
- **Selected Coursework:** Discrete Mathematics, Data Structures & Algorithms, Systems Programming, AI, Web Applications, Agile Development, Object Oriented Programming, DBMS

The University of Sydney 2022 – Present
Bachelor of Laws (LLB)

- WAM of 79

Newington College 2016 – 2021
HSC ATAR of 99.50 | Runner-up to Dux | House Prefect

RELEVANT EXPERIENCE

Casual Academic – School of Computer Science Dec 2024 – Present
The University of Sydney

- COMP2017: Systems Programming (S1 2025): I deliver workshops for over 600 students on topics including C programming, memory management, low-level system operations, and concurrency. Simplified complex concepts with live coding demonstrations and hands-on problem-solving, helping students overcome the unit's stigma and fear.
- INFO1110: Introduction to Programming (S1 2025): I provide tailored support to over 1,200 students in foundational programming concepts such as control flow, recursion, and procedural design. Contributed to improving the **pass rate from ~60% to ~80%** by mentoring students across varying progress levels.
- Collaborated with faculty to refine teaching materials, improve student engagement, and align exercises with real-world programming scenarios.

Software Engineering Intern – Enterprise Applications Dec 2024 – Present
Avec Global

- Automated critical business processes for the NSW and ACT scheme coordinator of the Return and Earn container deposit, significantly improving efficiency.
- Designed and developed a Python-based RSA automation tool with a GUI (*tkinter*) to assess refund eligibility for MRF operators. Integrated Excel data parsing (*pandas*), rule-based compliance logic, and multithreaded progress tracking. The tool generated five dynamic reports using *openpyxl*, **improving accuracy by over 80%** and drastically reducing manual processing time.
- Designed and implemented a Python-based automation tool to process and **port ~700 tickets** into the Zendesk ticketing system in **under 10 seconds**, drastically reducing manual ticket creation time. Utilized Excel data parsing (*pandas*), data manipulation, and the *Zendesk API* for ticket creation, enhancing managed services efficiency.

Machine Learning Developer Jul 2024 – Dec 2024
Insite Project Solutions Pty Ltd

- **Led a team of 6** software engineering students to design and develop a computer vision system addressing safety compliance on construction sites by detecting the proper use of safety equipment.
- Designed and implemented machine learning models using *OpenCV, PyTorch, TensorFlow, YOLOv8,* and *Weights & Biases*, **achieving ~90% accuracy** in recognising safety gear.
- Conducted data preprocessing, feature extraction, and hyperparameter optimization to improve prediction reliability and ensure the system's effectiveness in real-world environments.
- **Collaborated with stakeholders** to align the system with workplace safety standards, reducing risks and improving compliance monitoring on construction sites.

Senior Paralegal Jan 2022 – Dec 2024
BCP Lawyers & Consultants

- Conducted detailed contract reviews and negotiations for major clients, ensuring compliance with industry standards such as AS4000 and AS4902 construction contracts.
- Supported complex case preparation through meticulous research and documentation, enhancing problem-solving outcomes and ensuring accuracy in legal proceedings.

PROJECTS

Full-Stack Music Streaming Web Application | *Django, Python, HTML, CSS, JavaScript* | GitHub - Harmonize

- Developed and deployed a scalable music streaming platform on an *AWS EC2* instance with *Nginx* as a reverse proxy, *uWSGI* for serving the application, and optimized static file delivery. Successfully handled **at least 5 concurrent users using a load balancer**.
- Designed and implemented ***RESTful APIs* for CRUD operations** on songs, playlists, and user profiles, leveraging *Django's MVT architecture*, *SQLite* for database management, and caching mechanisms to optimize performance.
- Integrated third-party services, including *Google OAuth 2.0* for secure authentication and *AssemblyAI API* for song lyric retrieval, enhancing user experience and system efficiency.
- Built a responsive frontend using *HTML*, *CSS*, and *JavaScript*, with *AJAX* enabling real-time updates and seamless navigation.

Space Invaders Game | *Java, JavaFX, Gradle, Gang of Four Design Patterns* | GitHub - Space Invaders

- Developed a 2D game engine using Java to replicate Space Invaders, implementing mechanics such as enemy spawning, projectile firing, collision detection, and game state transitions.
- Applied *object-oriented programming* ***(OOP)*** **principles and design patterns** (Factory, Builder, State, Strategy, Singleton, Observer) to create modular and reusable code for scalable game development.
- Built interactive user interfaces with *JavaFX*, including start menus, in-game HUDs, and end-game screens, ensuring a polished user experience.
- Optimized game performance with double buffering, frame-rate control, and automated build processes using *Gradle* for streamlined compilation and packaging.

SKILLS

Languages: Python, Java, C, SQL, JavaScript, HTML, CSS, Swift
Frameworks/Tools: Git, Gradle, Flask, Jenkins, Django, Postman, Linux, Docker, Jira, Trello, Figma
Speaks: English (native), Greek (intermediate fluency)

HOBBIES & INTERESTS

In my spare time, I enjoy volunteering at Saint Basil's Aged Care teaching the elderly how they can use technology in their everyday lives. I enjoy video games and escape rooms. I am a passionate NRL football fan.

REFERENCES

References are available upon request.