# 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.

# **Software Engineering Intern - Enterprise Applications**

Dec 2024 - Feb 2025

Avec Global

- Automated critical business processes for the NSW and ACT scheme coordinator of the Return and Earn container deposit, significantly improving efficiency.
- Developed a Python-based automation tool with a GUI to streamline refund eligibility checks for recycling facilities. Integrated Excel data parsing, rule-based compliance logic, and multithreaded progress tracking, reducing manual effort and improving accuracy by over 80%.
- Authored a comprehensive operational manual outlining the tool's functionality, step-by-step usage, troubleshooting, FAQs, and version history. The guide streamlined onboarding and significantly reduced technical support requests, earning recognition from the client for its clarity and effectiveness.
- Developed a Python script to process and import ~700 IT service tickets into Zendesk via API, reducing manual input time from hours to under 10 seconds. Implemented Excel data parsing, status filtering, priority mapping, and batch ticket creation, ensuring efficient and accurate ticket management.

#### **Machine Learning Developer**

Jul 2024 - Dec 2024

Insite Project Solutions

- 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**

Portfolio Website | React.js, Tailwind CSS, JavaScript | https://sebskontos.github.io/

- Developed a **React-based** personal portfolio website to showcase projects, skills, and experience in a sleek, interactive format.
- Styled using Tailwind CSS, ensuring a modern, responsive design optimized for mobile and desktop viewing.
- Deployed on GitHub Pages, utilizing version control and CI/CD principles to automate updates.
- Enhanced performance with code splitting, optimized asset loading, and structured metadata for SEO.
- Implemented smooth animations to improve user experience and interactive features, including a contact form.

#### 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**

I enjoy video games and escape rooms. I am a passionate NRL football fan.

# REFERENCES

References are available upon request.