

# Will Holdsworth

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## Education

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**The University of Melbourne**, Bachelor of Science in Computing and Software Systems Feb 2022 – present

- Relevant coursework: Software Modelling and Design, Computer Systems, Artificial Intelligence, Models of Computation, Graphics and Interaction, Declarative Programming, Corporate Financial Decision Making
- Activities and societies: UMCPC, CISSA, DS Cubed, HackMelbourne, MUMS, SSS, MISC, Tabletop Gaming Society

## Experience

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**Software Engineering Intern**, Modano

Sept 2025 – present

**Winter Vacation Scholarship**, Dept. DSAI @ Monash University

June 2024 – July 2024

- 90% single record space savings in migrated Mongo DB database
- 200GB+ of CSVs processed and modified in parallel in C
- Presented to 20+ experts in optimisation theory my work and findings
- Designed and wrote run length encoding-based compression method for AI agent paths

## Projects

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**VIT Timetabling**

July 2024 – Oct 2025

A timetabling webapp for an education institution

- Communicated with client over several months via email and live video chat to achieve their goals
- Created REST API in Kotlin web framework ktor between ReactJS front-end and PostgreSQL database
- Configured an end-to-end CI/CD pipeline from docker dev container to live web app on VPS
- Described 30+ routes in a maintained OpenAPI specification

**IMAP Client**

Apr 2024 – Apr 2024

An email viewing program written in C

- Implemented a portion of RFC 3501 describing client-server interactions via IMAP
- Interfaced with an IMAP server to list inbox, retrieve mail content, parse headers, and handle MIME
- Facilitated connection via berkley sockets
- Handled server error responses gracefully by attempting re-login

**DoraTransport**

Nov 2023 – Nov 2023

A wayfinding webapp for PTV

- Integrated OpenAI's GPT-4 with PTV's public API
- Created an accessible web interface with StreamLit

## Achievements

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- Honourable Mention ML AI Hack 2023 (DoraTransport)
- International Mathematics Modelling Competition (IMMC) 2021 participant
- Bronze JMSS diploma recognising extra-curricular involvement

## Skills

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**Programming:** Python, Rust, Typescript/Javascript, Kotlin/Java, Nix, C, Shell Script, SQL, MATLAB

**Developer Tools:** Git, Docker, Gradle, Vim, VSCode, IntelliJ IDEA