Jack Bendtsen

Melbourne, VIC

Software Engineer · Systems, Infrastructure & Embedded

jackdbendtsen@gmail.com jackbendtsen.com.au linkedin.com/in/jack-bendtsen github.com/jbendtsen

LANGUAGES

C / C++	12 yrs
Java	5 yrs
Python	3 yrs
Go	3 yrs
C#	2 yrs
JavaScript	1 yr
Kotlin	1 yr
Swift	1 yr

TECHNOLOGIES

Linux	15 yrs
Git	10 yrs
Windows	7 yrs
HTTP	5 yrs
ZFS	4 yrs
CI/CD	3 yrs
Ansible	1 yr
Docker	1 yr
Kubernetes	1 yr

PROFILE

Software engineer with years of experience building fast, reliable systems across cloud infrastructure, embedded devices and mobile. Most recently specialised in backup and data protection, a critical layer of cyber security and ransomware recovery. Conceived, pitched and led a high-performance S3 storage server on ZFS in Go, taking it from idea to an evolving product and making authentication 100x faster; also managed Kubernetes and Ansible infrastructure and introduced CI/CD and testing practices to the team. Previously partnered with Dolby Laboratories on next-generation video streaming, delivering a decoder 3x faster than the reference implementation, and wrote Bluetooth LE firmware within 24KB of RAM. Uses AI tools in day-to-day development with a practical understanding of where they save time, where their accuracy falls short, and when engineering judgement has to take over. Works well independently and explains technical work clearly to non-technical colleagues.

EXPERIENCE

IT DevOps and Software Developer

Jul 2025 – Nov 2026

Cybersecure · Backup & cyber resilience

- Conceived and pitched a high-performance S3 server built on ZFS in Go, then led the project from idea through development, continually adding features and enhancements.
- Designed new features to integrate with the existing backup software, diagnosed underperforming areas and developed fixes, including an authentication cache that made authentication 100x faster.
- Regularly demonstrated performance and progress to management, and gave project timeline estimates that were reliably met.
- Managed IT infrastructure, including microservice architecture and deployment in Kubernetes, automation with Ansible, and CI/CD using GitLab.
- Introduced software best practices: feature branches, pull requests, automated testing, and separate staging and production environments.
- Designed the next-generation architecture for cloud backup and restore.

Linux Kubernetes Ansible Docker CI/CD FreeBSD S3 ZFS Go Python

EXPERTISE

ENGINEERING

- Performance optimisation
- Algorithm design
- Hardware–software integration
- Cross-platform development
- Code quality & best practices

DELIVERY

- Complex problem solving
- Independent project delivery
- Reliable time estimation

COLLABORATION

- Cross-functional teams
- Technical communication
- Mentoring & knowledge sharing
- Self-motivated learning

EDUCATION

2018 – 2020
Bachelor of Computer Science
Swinburne University of Technology
2 years of coursework completed; left to begin a full-time software engineering career

2017 – 2018
Diploma of Music Performance
JMC Academy

2016
Certificate IV in IT (Software Development)
Swinburne University of Technology

REFEREES

Available upon request.

EXPERIENCE (CONTINUED)

Software Engineer
Jun 2022 – Jun 2025

Mactrix Development

- Implemented next-generation video streaming technology (CMMF) in partnership with Dolby Laboratories.
- Built an alternative CMMF xCD-1 decoder in Java that achieved 3x the performance of the reference implementation.
- Wrote high-performance multithreaded code in C++ and Java, including an HTTP proxy in C++ for simulating turbulent connections.
- Worked with iXsystems on a networked storage driver for Incus, using iSCSI to connect to TrueNAS appliances.

Android · Java · Kotlin · C++ · HTTP/2 · Python · Go · ZFS

Embedded Software Engineer
Jun 2021 – Mar 2022

VeroGuard Systems

- Designed custom firmware in C and ARM assembly for a Bluetooth LE microcontroller, expanding the product's capabilities and features within 24KB of RAM.
- Contributed to a C++ RTOS for a hardware security module designed for military-grade communications.

C · C++ · ARM · Python · Linux

SELECTED PROJECTS

AngioTool Enhancement
Centre for Eye Research Australia

github.com/jbendtsen/AngioTool-Batch

Expanded scientific research capabilities by optimising memory usage, implementing batch processing for large biomedical datasets, and designing efficient algorithms for ophthalmology scan analysis, enabling advanced research applications in eye health studies.

libtwilight
Open source

github.com/opentwilight/libtwilight

Created a homebrew console framework as a libogc replacement for Wii and GameCube development, using C and PowerPC assembly to leverage unique console hardware capabilities and give developers optimised tools for application and game creation.

Officeworks Assistant App
Android · Java

Designed an advanced Android productivity app while working at Officeworks:

- Advanced search with filters and sorting for quick product lookup.
- Detailed product information: image, SKU, aisle and shelf location, current price, and stock levels in every store.
- Custom barcode scanner that handles multiple barcodes at once, with a live HUD showing each product's icon, stock level and price change above its barcode.