

# Jake Spencer W.

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## Education

<b>UTS</b> – BEng in Biomedical and Mechatronic Engineering (Honours)	Expected May 2028
<b>UTS</b> – BSc in Medical Science	Expected Nov 2026
<b>TAFE</b> – Cert IV in Computer Programming	2020
<b>TAFE</b> – Cert IV in Cyber Security	2019

## Experience

**Crew Member**, Pattysmiths – Kings Cross, Sydney Sep 2024 – Present

- Voted most liked team member by manager and peers

**Software Developer**, ClockOn – Gosford, Central Coast Jul 2019 – Feb 2020

- Improved accessibility for customers by creating a web-based user interface using C# ASP.NET & jQuery
- Trained team members on new progressive web frameworks and compilation tools to improve development cycles

**Fiber Splicer**, Shockman – Regional NSW 2015

- Supported infrastructure and network operations, troubleshooting and maintaining systems across customer-facing environments

**Placement**, Academy of Interactive Entertainment – Ultimo, Sydney 2015

- Selected by the school deputy principal to attend a competitive work experience course on video game development
- Studied 3D animation using Blender and video game development in Unity using C#

## Projects

**VS-Code Arduino IntelliSense** [marketplace.visualstudio.com/publishers/svnty](https://marketplace.visualstudio.com/publishers/svnty)

- Improved developer experience for over 150 developers by automating the inclusion of compile-time C++ type definitions into Arduino workspaces during code editing and minimizing latency by caching source files

**Alternipedia** [alternipedia.org/](https://alternipedia.org/)

- Built a multi-perspective encyclopedia platform that enables users to compare ideological interpretations of the same topic, improving online content transparency, engagement and training sets for artificial intelligence

**Medicamina** [medicamina.us/dash](https://medicamina.us/dash)

- Designed and built a precision medicine platform providing clinicians and families with patient-specific insights, leveraging Microsoft Azure database driven analytics and dynamic data visualization
- Developed a deep learning blood cell classifier achieving 99.5% validation accuracy, integrating image preprocessing and MLP&CNN-based classification

**Low Earth Orbit object tracker** [github.com/svnty/ISS-arduino-tracker](https://github.com/svnty/ISS-arduino-tracker)

- Designed and implemented a real-time ISS tracking system using Arduino, GPS, Wi-Fi, and public APIs, integrating orbital data retrieval and 3D-printed hardware to accurately track the International Space Station from any location

**Coreable** [github.com/coreable](https://github.com/coreable)

- Successfully launched an incubator idea – built and deployed a production-ready web application stack (SQL, Google Cloud Platform, TypeScript, NodeJS, GraphQL, ReactJS, Bootstrap)

## Skills

**Information Technology:** SQL, Rust, Python (TensorFlow, Keras), Linux, UML, Agile, Next.js,

**Engineering:** Autodesk Fusion, 3D printing, DC circuit analysis, microcontrollers

**Biology:** Cell culturing, microscopy, hemocytometry, titrations, centrifugation, gel electrophoresis, spectrophotometry, gene recombination, flow cytometry, karyotyping

## Special Considerations

For 26 weeks of the year (during university semester) I can work part time, the other 26 weeks I can work full time