

# 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

<b>Crew Member</b> , Pattysmiths – Kings Cross, Sydney	Sep 2024 – Present
• Voted most liked team member by manager and peers	
<b>Software Developer</b> , 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	
<b>Fiber Splicer</b> , Shockman – Regional NSW	2015
• Supported infrastructure and network operations, troubleshooting and maintaining systems across customer-facing environments	
<b>Placement</b> , 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

<b>VS-Code Arduino IntelliSense</b>	<a href="https://marketplace.visualstudio.com/publishers/svnty">marketplace.visualstudio.com/publishers/svnty</a>
• 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	
<b>Alternipedia</b>	<a href="https://alternipedia.org/">alternipedia.org/</a>
• 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	
<b>Medicamina</b>	<a href="https://medicamina.us/dash">medicamina.us/dash</a>
• 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	
<b>Low Earth Orbit object tracker</b>	<a href="https://github.com/svnty/ISS-arduino-tracker">github.com/svnty/ISS-arduino-tracker</a>
• 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	
<b>Coreable</b>	<a href="https://github.com/coreable">github.com/coreable</a>
• 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