

Joshua Jordan

Mechatronics/Software Engineer



Contact

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Languages

C++, Python, C, C#,
Java, Lisp

Tools

OpenCV, Docker, Git,
ZMQ, Darknet,
Tensorflow, openVino,
Numpy, matplotlib

Platforms

Linux, Windows, Nvidia
Tx2, Raspberry Pi, Keil

I make solutions using software, sensors and machine learning. I excel in a team environment, solving challenging problems in creative ways.

Experience

- Excellent development ability in C++, Python and C
- Proven track record of developing cutting-edge tech
- Responsible for system design of computer vision products
- Extensive experience with subversion, debugging tools and best practices
- Wide range of sensor integration for microcontrollers
- Intuitive end-to-end UI and UX design
- Excellent written and verbal communication skills
- Thrive within a creative team environment
- Constantly looking to learn and improve
- Experienced in start-up culture

Employment

- 2017–2019 **IMAGR - Mechatronics Engineer** www.imagr.co/
Key member in designing a world-class computer vision solution for retail. Saw our product go from early prototype to winning a contract with an international company and customer roll out. Real time classification of >10,000 objects.
- Rapid prototyping computer vision solutions
 - Designed an electro-mechanical autonomous data collection platform
 - Real-time deep learning classification on an embedded device
 - "Big data" pipelines using zmq
 - Deep dive into camera systems
 - Helped set up the software team - hiring, testing and best practices
 - Liaison with investors, contractors and customers
- 2013–2017 **Seequent (formaly AranzGeo) - Software Engineer** www.seequent.com/
Geological modelling startup producing best in class software in conjunction with a diverse team. Responsible for critical features in the product.
- Implementation of complex mathematical code within a python/c codebase for windows
 - Fast, responsive and intuitive application with large datasets
 - Bug tracking, licensing and automated tests for desktop application
- 2012–2013 **Trimble Navigation - Software Engineer** www.trimble.com/survey/
Developed innovative surveying products in a mature codebase to produce a wide range of geospatial data.
- Research and prototyping of real time HUD devices as an independent initiative
 - GPS and UX work in C and C++ for Windows CE devices
 - Developed an external API for third parties
- 2011–2012 **HITLab NZ - Researcher** www.hitlabnz.org/
UX Research scholarship using a haptic device for molecular bonding problems.
- OpenGL and OpenCV development

Education

2007–2011	Bachelor of Engineering (Hons), Mechatronics 2:1 Distinction	University of Canterbury, Christchurch
2007	NCEA level 3 1 st in English NCEA level 3 (final year) Distinction in Drama NCEA level 3 (final year) STAR University maths program	Nayland College, Nelson
<i>Awards</i>		
2011	ENZCon published paper Parallelism of an MCU on an FPGA	Massey University, Palmerston North
2007	McKee Trust Scholarship Three year high achievement scholarship	University of Canterbury, Christchurch

Interests

2017–	Event manager and artist Part of a community group running stages at various festivals in NZ. This involves Dj-ing, lighting setup and building artwork to engage and delight.	Hijinxx
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Professional

Machine learning, game theory, artificial intelligence, embodied cognition, topology, computer vision, systems design, climate change.

Personal

Surfing, DJ'ing, kite-surfing, football, sailing, guitar, skiing.

References available on request.