

# Joshua Jordan

BEng (hons) Mechatronics/Software Engineer



*I make meaningful solutions using software, creativity and machine learning. I'm passionate about working with great people to solve challenging problems that make a difference.*

## Experience

- Excellent development ability in C++, Python and C
- Proven track record of independently completing cutting-edge technology projects
- System design of machine learning products
- Version control, debugging tools, effective testing and coding standards
- Large scientific codebases, greenfield projects and real-time low latency systems
- Developed successful relationship with clients and investors
- Excellent written and verbal communication skills
- Thrive within an entrepreneurial, creative team environment
- Constantly looking to learn and improve

## Employment

- 2017–2019 **IMAGR - Mechatronics Engineer** [www.imagr.co/](http://www.imagr.co/)  
Key member in incubating a world-class computer vision solution for retail. Helped our product go from early prototype to winning a contract with an international company and customer roll out. Real time detection and classification of >10,000 unique products.
- Rapid prototyping computer vision solutions
  - Electro-mechanical autonomous terabytes data collection platform
  - Real-time deep learning on an embedded device
  - Deep dive into vision systems
  - Key lead in the software team - set priorities, hiring, mentoring
  - Client service and liaison with investors, contractors and customers
- 2013–2017 **Seequent (formaly AranzGeo) - Software Engineer** [www.seequent.com/](http://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/](http://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/](http://www.hitlabnz.org/)  
UX Research scholarship using a haptic device for molecular bonding problems.
- OpenGL and OpenCV development

## Contact

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## Languages

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

## Tools

OpenCV, Docker, Git,  
ZMQ, Darknet,  
Tensorflow, openVino,  
Numpy, matplotlib, I2C,  
SPI

## Platforms

Linux, Windows, Nvidia  
Tx2, Raspberry Pi, Keil,  
stm32

## Education

2007–2011    **Bachelor of Engineering (Honors), Mechatronics**    University of Canterbury, Christchurch  
2:1 Distinction  
Class representative - events organisation, liaison for peers

## Achievements

2011    **ENZCon published paper**    Massey University, Palmerston North  
Parallelism of an MCU on an FPGA

2007    **McKee Trust Scholarship**    University of Canterbury, Christchurch  
Three year high achievement scholarship

## Volunteering

2017–    **Event manager and artist**    Hijinx  
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.

2015–    **Start-up consultant**    EasyLink  
Technical consultant for feasibility of a passenger wheelchair system. Wrote all the software, including computer vision and controls, to get prototype ready for investor pitches.

## Interests

### *Professional*

Artificial intelligence, embodied cognition, topology, computer vision, systems design, clean tech.

### *Personal*

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

*Additional references available on request.*

24<sup>th</sup> September 2019

To Whom it may Concern;

**Re: Open Reference for Joshua Jordan Mechatronics/Software Engineer at IMAGR, April 2017-June 2019**

Joshua was a pivotal member of the team at IMAGR. He was the third employee and a key part of building IMAGR up to where we are today - a world class machine learning solution that global retail is competing to be involved with and an amazing team of people.

In the two and a half years I have known Joshua, he has proved to be a driven, capable and likable individual who has grown immensely during his time at IMAGR. He has the rare ability to pull together disparate parts of the team through his communication style and technical knowledge. He is able to propose and execute novel solutions independently to help solve problems that require deep understanding of computer vision systems. He also has the courage to raise concerns to directly benefit the company and does so appropriately.

Joshua is serious about his work, he's dependable and puts in his all. An example of this was when he worked around the clock to get the product ready before making the flight over to Hong Kong to help me pitch to investors. The pitch was a success, in a large part because of Joshua's tenacity and determination.

I cannot recommend Joshua enough. He will be an asset to you and whatever project he is involved in, helping his team to build incredible things. I believe any company would consider themselves lucky to employ him, I'd have him back on board in a heartbeat - if he ever wants to return to IMAGR he always has a place here.

I would be happy to discuss how Joshua could best fit any team,

Yours sincerely,



**William Chomley**

CEO

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Employment reference for Mr Joshua Jordan

Dear Sir/Madam

Mr Joshua Jordan was my colleague at Imagr between June 2018 and May 2019 when our tenures overlapped.

Imagr is a startup technology company developing new retail experiences. We worked together developing smart shopping solutions incorporating computer vision and machine learning. I continue to work for Imagr as a contractor, however at the time we were both based in the Auckland office.

Mr Jordan was on the artificial intelligence (AI) team employed as a mechatronics/software engineer. His duties were to:

1. Evaluate mechanical and electromechanical systems and products by designing and conducting research programs
2. Support the AI team in research and system design
3. Distill requirements into an execution plan
4. Design scalable and maintainable software
5. Craft high-quality, tested software
6. Participate in planning sessions, provide estimations and work breakdowns
7. Represent and show Imagr products at trade shows and to customers

During our time together we worked our way through many technical challenges in this new field. Mr Jordan has incredible technical knowledge coupled with a high level of design creativity. He took responsibility and showed effective leadership in the projects he was assigned and I was always completely satisfied with his work.

He was highly effective in the team and respected by his colleagues. He was highly valued by his superiors and trusted to present the best possible image to potential and existing customers.

I am thankful for our positive work together and I wish him all the best for the future.

Kind regards



Date: 1.10.2019

Ian Scott-Woods  
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