JoshuaJordan

BEng (hons) 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, I2C, SPI

Platforms

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

I make meaningful solutions using software, machine learning and creativity. 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
- Microservices using react, docker and zmq
- Developed successful relationship with clients and investors
- Excellent written and verbal communication skills
- Constantly looking to learn and improve

Employment

2017–2019 **IMAGR - Mechatronics Engineer** 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 microservice 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 liaision 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 scientific diverse team. Responible 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 (Honors), Mechatronics** University of Canterbury, Christchurch
2:1 Distinction
Class representative - events organisation, liasion 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** Hijinxx
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, UX, GAN's for nlp, embodied cognition, topology, computer vision, systems design.

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

Additional references available on request.