



Jane Wyngaard:

Electronics and Software Engineer

+ PERSONAL INFORMATION

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 +1 630 788 9703

Current Residence Altadena, California

 <https://github.com/r4space>

+ PROFESSIONAL SKILLS

Multi-disciplinary experience: While always focused on an engineering challenge, my work experience has always been in the context of the Earth Sciences. From embedded systems for weather stations, through to microprocessor design at an academic National High Performance Computing Centre, and now currently to open source BigData tools development for multiple science domains. In this last capacity I am the co-chair of the Earth Science Information Partners Federation Drone Cluster, and Hackathon Consultant to the NSF Polar Cyberinfrastructure Research Coordination Network.

Independant researcher: Given the science focus of the environments, all of my work has been predominantly self-directed, leaving me to develop the skills required to scope, design, implement, and complete complex projects on my own.

Coalesce heterogeneous information: Important particularly to research, my past work experience has equipped me to see commonality (or a need therefore), and potential efficiency gaining parallels in wildly diverse domains and problem sets.

+ TECHNICAL SKILLS

Languages	VHDL (6 years), Python (4 years), Java (2 years), Bash, C, Assembly
Operating Systems	Ubuntu (Server, Desktop, Snappy), CentOS, OSX, Windows
APIs, Libraries & Tools (software)	Xilinx tool suites, JetBrains suite, GCC, Apache Kafka, Micropython, Apache OODT, MongoDB, QEMU, Git, ROS, Ardupilot
Hardware	Xilinx FPGS (Virtex 2-7), ARM processors (STM32, ARMv8), Arduino, Pixhawk

+ WORK EXPERIENCE

USC Postdoctoral Scholar **University of Southern California**

Oct 2015 - Present Los Angeles, California

Caltech Postdoctoral Scholar **California Institute of Technology**

NASA's Jet Propulsion Laboratory

Oct 2014 - Sept 2015 Pasadena, California

Research Engineer **Peralex**

July - August 2014 Cape Town, South Africa <http://peralex.com/>

Doctoral Student **Centre for High Performance Computing (CHPC)**

Jan 2008 - Sept 2014 Council for Scientific and Industrial Research (CSIR)

<http://www.chpc.ac.za> Cape Town, South Africa

Select Publications Poster, American Geophysical Union Fall meeting 2015, Standardised Science Embedded Data infrastructure for Drones

Presentation, Apache Con BigData 2015, High Throughput Kafka for Science

Paper, IEEE FPL2013, Towards a many-core architecture for HP

+ EDUCATION

University of Cape Town **Doctorate of Science in Electrical Engineering**

2008-2014

University of Cape Town **Bachelors of Science in Mechatronics Engineering**

2004 - 2007