

# Aaron Craig's CV

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CONTACT INFO	Phone: 027 755 2760 Email: aaroncraig@protonmail.ch Website: <a href="https://github.com/craigthelinguist">github.com/craigthelinguist</a>	24 Mein Street Newtown, Wellington, 6021
SKILLS	<b>Programming Languages:</b> Java, C, Python, Haskell, Prolog, SQL <b>Modelling Languages:</b> Alloy, UML, LTSA <b>Markup Languages:</b> Latex, Markdown, JSON, XML <b>Libraries &amp; Frameworks:</b> JUnit, pandas, matplotlib, numpy, curses, OpenGL, XStream, Berkeley Socket API, Swing, Unity. <b>Protocols:</b> HTTP, DNS.	
JOB HISTORY	<b>Victoria University, Wellington</b> <i>Research Assistant</i> Oct 2015 – Mar 2016 <ul style="list-style-type: none"><li>• Contribute to the Wyvern interpreter: <a href="https://github.com/wyvernlang/wyvern">github.com/wyvernlang/wyvern</a></li><li>• Design a logic for specifying and verifying architectural constraints.</li><li>• My supervisor was <i>Alex Potanin</i>.</li></ul> <b>New Zealand Registry Services, Wellington</b> <i>Research Intern</i> Oct 2014 – Mar 2015 <ul style="list-style-type: none"><li>• Analysis and summary of DNS data using pandas, matplotlib.</li><li>• Detection and classification of botnet domains using clustering techniques.</li><li>• Helped gather and verify data used to generate a map of the NZ internet's routing topology.</li></ul> <b>Victoria University, Wellington</b> <i>Sessional Assistant &amp; Tutor</i> Mar 2014 – Oct 2015 <ul style="list-style-type: none"><li>• Marking tests and assignments; invigilating.</li><li>• Running tutorials, labs, and helpdesks.</li><li>• Classes tutored: Intro to Computer Science; Engineering Modelling &amp; Design; Data Structures &amp; Algorithms II; Formal Foundations of Programming.</li></ul> <b>Converga Ltd., Petone</b> <i>Business Processing Clerk</i> Nov 2013 – Mar 2014 <ul style="list-style-type: none"><li>• Data entry and verification.</li><li>• Sorting files by hand. (I did this using radix sort)</li></ul> <b>Target Furniture, Porirua</b> <i>Temp, Storeperson</i> Nov 2010 – May 2013 <ul style="list-style-type: none"><li>• Furniture removal, delivery, assembly, and repair.</li><li>• Managing inventory.</li><li>• Driving forklift.</li><li>• Training temps.</li><li>• Assisting and greeting customers.</li></ul>	
INTERESTS & PROJECTS	<b>Natural &amp; Programming Languages.</b> I'm interested in the structure of languages. This includes: compilers, programming language design, and natural language processing. I have made several corpora for Māori and NZ English. I have my own SAT solver that I've been tinkering with. At NZRS I did research into detecting botnets by classifying domain names. As part of that I gave a presentation at the 2015 New Zealand Internet Research Forum.  <b>Visualisations.</b> At NZRS I helped verify data used to generate a map of the New Zealand internet. I have implemented several interactive algorithm visualisations (A*, Kruskal's, Knight's Tour, KNN).	

**Computer Science Education.** My work in computer science pedagogy keeps me sharp in a diverse number of areas. I am writing an introductory textbook of computer science, partly motivated by my experience as a student.

**Game Development.** Each year I attend Pixeljam, a Wellington-based gamejam. We've several flavours of game, such as a 2d lane-runner, a 2d platformer, and a 3d horror game. Recently I started working on a 2d game engine in Java, built atop OpenGL.

#### EDUCATION

##### **Victoria University of Wellington, New Zealand**

- STAR Programme 2011
- BA Linguistics & Philosophy 2012
- BSc Computer Science & Mathematics 2013 - Current

##### **Tawa College, New Zealand**

- NCEA Level 3 (Merit endorsement). 2011

#### SCHOLARSHIPS & AWARDS

##### **Victoria University of Wellington**

- Victoria Achievers Scholarship 2012

##### **NZQA**

- Outstanding English Scholarship 2011

##### **Tawa College**

- Katherine Mansfield Award (English) 2011
- Leanne Dixon Cup (History) 2011

#### LANGUAGES

English  
Māori (Elementary)

#### ABOUT ME

I was born in Porirua and live in Wellington. I like reading history, philosophy, and literature. I did amateur boxing for two years but nowadays just like to watch. My tribe is Muapoko, in Horowhenua.

#### REFERENCES

Available upon request.