

Huon Wilson – Résumé

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Nationality	Australian (and eligible for a British passport)

Academic

2011–2014	Bachelor of Science (Advanced Mathematics) (Honours) , <i>University of Sydney, Australia</i> First class honours, majoring in both Mathematics and Statistics with a High Distinction in every course.
2012, Semester 2	Academic Exchange , <i>Uppsala University, Sweden</i>
2015–present	Masters of Science (Statistics) , <i>University of Sydney, Australia</i> Title: <i>Computing fast and accurate convolutions.</i> Expected completion: January 2016.

Academic records available on request.

Experience

Rust

- ◇ Member of the core team of the Rust programming language for one and a half years.
- ◇ More than three years of experience with Rust, and nearly three years of regular and numerous contributions to the compiler and standard library.
- ◇ Internship with Mozilla Research during the summer of 2015, working on data parallelism via SIMD (Single-Instruction, Multiple-Data).

Other

- ◇ Developed and implemented numerical algorithms for fast convolutions as an AMSI (Australian Mathematical Sciences Institute) Research Scholar from December 2013 to February 2014. These algorithms mitigate and avoid the catastrophic cancellation of floating-point numbers that occurs with conventional fast algorithms, while still maintaining good asymptotic behaviour and high performance in practice.
- ◇ Designed and implemented a monitoring system for the 39-piece Federation Bells public art installation in Melbourne, Australia as part of its refresh in April 2012. This system is still used daily to ensure the health of the bells, and includes interfacing a large and highly concurrent Python program with audio drivers and a database, as well as performing novel audio capture and signal processing to detect bell chimes in a noisy outdoor environment.
<http://federationbells.com.au>

Languages

Highly experienced

I have a lot of experience with the following languages and technologies, which I have used for programs for non-trivial tasks:

- ◇ Rust
- ◇ C
- ◇ Python
- ◇ Assembly, most experience in reading rather than writing
- ◇ Haskell
- ◇ R
- ◇ Javascript
- ◇ Unix shell and common utilities
- ◇ Mark-up and formatting tools like HTML/CSS and \LaTeX

Some experience

These are languages or technologies that I am familiar with and have used for smaller tasks:

- ◇ C++
- ◇ GPGPU programming via CUDA
- ◇ Java
- ◇ Julia
- ◇ Lisps such as Clojure and Emacs Lisp
- ◇ PHP
- ◇ Ruby
- ◇ SQL

I enjoy learning new languages and programming techniques, and can do so quickly.

Awards, Prizes and Recognition

- ◇ Equal Second Prize in the Senior division of the Annual School Mathematics Competition in 2010.
- ◇ Invited to attend the National Mathematics Summer School in 2010, and was selected and returned as one of the dozen members of the “Experienced Group” in 2011.
- ◇ Scholarships and prizes received at the University of Sydney:
 - Selected for the Faculty of Science Talented Students Program
 - Faculty of Science Dean’s List of Excellence in 2011, 2012, 2013
 - Tim Brown Prize No. II (for statistics) in 2013
 - Faculty of Science Dean’s Scholarship in Science in 2011, 2012
 - International Exchange Scholarship for 2012
 - Barker Scholarship No. II (for mathematics) in 2011
 - Cengage Learning Prize No. I (for advanced mathematics) in 2011
 - The University of Sydney Entry Scholarship in 2011

Referees

Available on request.