

CHRIS CUMMINS

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EDUCATION

- 2018
(expected) **Ph.D, Informatics** (*ongoing*)
University of Edinburgh, School of Informatics
Advisers: H. LEATHER & P. PETOUMENOS
Developing novel compiler optimisations for patterns-based parallel programming.
- 2015 **MSc by Research, Pervasive Parallelism**
University of Edinburgh, School of Informatics
Thesis: *Autotuning Stencil Codes with Algorithmic Skeletons*
Advisers: H. LEATHER & P. PETOUMENOS
Runtime adaptive tuning for heterogeneous parallelism. Supervised machine learning techniques using distributed training sets and synthetic benchmark generation.
High-level GPGPU programming with OpenCL.
- 2014 **MEng Electronic Engineering & Computer Science** (*First Class Honours*)
Aston University, School of Engineering & Applied Science
Thesis: *Protein Isoelectric Point Database*
Adviser: I. T. NABNEY
Created and open sourced a novel search engine and research tool for molecular biochemistry.

PROFESSIONAL EXPERIENCE

- 2012–2013 **Intel Corporation, Open Source Developer Intern**
Patched `ioctl` subsystem in Linux kernel. Developed tools for Intel GPU assembly programming. Implemented GTK+ support for Wayland display server. Fixed usability bugs in GNOME desktop applications. Developed 3D particle effects engine.
Numerous open source project contributions.
- 2010–2014 **Freelance, Web Developer**
Full-stack development for small businesses, including graphic design and branding. Frontend experience with JavaScript; backend development using Clojure, Node.js, PHP, MySQL, PostgreSQL, and Jekyll.
- 2008 **Rolls Royce Holdings plc, Work placement (1 week)**

PUBLICATIONS

- 2015 E. BUNKUTE, C. CUMMINS, F. CROFTS, G. BUNCE, I. T. NABNEY, D. R. FLOWER. **PIP-DB: The Protein Isoelectric Point Database**. *Bioinformatics*, 31(2), 295-296. Chicago.

AWARDS

- 2014 Institute of Engineering & Technology Prize
2009 Arkwright Scholarship, Rolls Royce Holdings plc
2009 Engineering Education Scheme of England
2008 AESSEAL Design Innovation Award