CHRIS CUMMINS

http://chriscummins.cc
chrisc.101@gmail.com

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