

Ori Bernstein

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Education

Engineering Physics, McMaster University, 2011 (expected)
Minor in Computer Science, McMaster University, 2011 (expected)
A.Y. Jackson Secondary School, North York, 2005

Work Experience

Compiler Optimization Intern May 2010 – Aug 2010
IBM Toronto Software Lab
Worked within the Testarossa JIT team. Added the ability to do loop invariant code motion within the optimizer.

Research Assistant Feb 2010 – Apr 2010
Dr. Anand McMaster University
Worked on the Parallel Particle Simulation project in the department of computing and science. The goal of the research was to find novel distributed parallel algorithms for the simulation of large particle systems suitable for implementation on processors such as the Cell processor.

Plan 9 Systems Development Intern June 2009 – Aug 2009
Alcatel-Lucent Bell Labs
Worked in the Bell Labs Unix room on various aspects of the Plan 9 operating system, with a focus video drivers development. Integrated a number of improvements to the VESA driver, and started on a driver for the Intel i965 chipset.

Embedded Software Developer Intern May 2008 – Aug 2008
Research in Motion RIM Mississauga
Lead developer for RIM Fermion2 OS. Brought up Blackberry OS on new hardware, and worked on ports of the drivers and general bug hunting. Also improved the fingerprint scanner drivers, and provided builds of software for manufacturing.

Summer of Code Student May 2007 - Aug 2007
Google
Worked on an implementation of the Dbus protocol designed to facilitate application scripting, and to integrate better with Glib applications through GObject introspection and improved mainloop support.

Assistant System Administrator Jan. 2007 – May 2007

SHARCnet (Shared Heirarchical
Academic Research Computing Network) McMaster University
Development of various administration scripts and web applications for Sharcnet
(www.sharcnet.ca), while working part time as the only student employed by Sharc-
net.

Summer of Code Student May 2006 – Aug 2006
Google
Began development of a proxy X11 server (Xscreen) in order to allow the disconnection
and reconnection of applications from a running X server without loss of state or data,
and reconnect to another running X server.

Skills

C, C++, Objective C, Matlab, x86 Assembly, Java, Python, Perl, OCaml, Shell
Scripting, L^AT_EX
Office productivity software, Apache, PHP, GTK+/Gnome,
POSIX, X11, SUSv3, Plan 9, Unix.

Extracurricular

Developer Sep 2007 – Present
Myrddin Programming Language
Ongoing project to create a low-level programming language, suitable for writing
software to run on bare metal. Progress is slow, but steady. Source is available on
<http://gitweb.eigenstate.org>

Developer Sep 2009 – Present
Atom Kernel
Ongoing project to create a small, simple operating system kernel good support for
concurrent programming, with an easy to learn and develop for API. Currently, we
have a booting system with threads and memory management. Source is available on
<http://gitweb.eigenstate.org>

Member Sep 2006 – April 2006
McMaster Solar Car Project McMaster University
Contributed a great deal of the ideas for the structure of the chassis for the next
generation of the solar car. Dropped out of the club due to lack of time, and lack of
activity.