

JAMES BROADHEAD
Electronic and Computer Engineer

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I am interesting in working on challenging problems in Software Engineering. I have experience working in industry, academia and open-source. I am efficient and motivated, and perform well in team environments. My preferred languages are C++ and Python, but I adapt well and am eager to learn new skills.

Third Level Qualifications:

2007 *Baccalaureus in Arte Ingeniaria (B.A.I) Hons.*
Bachelor of Computer and Electronic Engineering
Trinity College Dublin

Experience:

2011 – pres. **BSB International** *Software Developer*
International Software Development team, developing Life Insurance software in Java.
Involved in bug-fixing, feature development and code review
Server-client model with object persistence.

Key Technologies: *Java, Spring, Maven, Jboss, Junit, Oracle, SQL*

2007 - 2010 **Telecommunications Research Group (TCD)**
Postgraduate Researcher
Developed Distributed Simulation Framework for Monte-Carlo Simulation and Statistical Analysis of Frequency Rendezvous using Python and C library calls (PyObject).
Profiling and Optimisation of Simulator as project developed and research needs changed. Distributed processing , and employed multi-processing, Replaced Python API calls with C modules and SciPy calls based on profiling.
Project management / Bug Tracking / VCS - TRAC, Subversion
Attended International Conferences and Workshops, Involved in Peer Review of submitted papers
Taught First-Year Engineering class for Digital Design project

Key Technologies: *Python, C (PyObject) SciPy, Numpy, multiprocessing.*

2007 (4mo.) **Cisco Systems** *Software Development Engineering Intern*
Software Development Internship in San Jose with individual tasks and deadlines on two projects.
Programming VOIP client in C++ using Windows API and MFC.
Key Technologies: *Visual C++, MFC, Windows API, C++test, SIP, Clearcase*



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Experience (cont.):

2005 – pres. Gentoo Linux *User / Contributor*

Active member of community; submitting bug reports, patches, and install scripts. I contribute to documentation and help in the user support channel.

Maintain personal systems each with custom compiler optimisations and hand-configured kernels. Minor kernel patching.

Build-system and System administration experience, debugging failed builds and failing applications with gdb, strace.

Maintain minor forks of two projects with patches that have not yet been merged upstream.

Key Technologies: *gcc, gdb, strace, Bugzilla, Mercurial, VirtualBox*

2006 (3mo.) Xilinx *Customer Applications Engineering Intern*

Internship debugging customer circuit design issues, replicating, triaging and reporting software bugs.

Experience with VLSI languages (VHDL, Verilog), attended digital design courses, designed minor circuits.

Experience dealing with remote team and customers over telephone, instant-message and remote-desktop

Key Technologies: *VHDL, Verilog, Low-level Optimisation*

Skills: Programming: C++, Python, Java, C, Assembly (M68k), Erlang,
VHDL, Verilog, Shell Scripting (bash)

Environments: Development in Linux and Windows
City and Guilds AutoCAD qualified.

Secondary Education:

St. Andrew's College, Booterstown, Co. Dublin

Leaving Certificate – All subjects at Higher Level (2003)

A2 – Maths, English, Music, French B2 – Irish

B3 – Physics, Classical Studies.

Highly Commended in Young Scientist Competition

Other Experience:

Reserve Defence Force: *Infantry Platoon Sergeant (Part-time)*

Administration/leadership role for 30 soldiers.

Languages: English, French, Irish

Interests: Music; Grade 8 Oboe, Reading, Sailing, Skiing, Hiking, Reading.