

Miles Gordon Bader

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EDUCATION

Carnegie-Mellon University, Pittsburgh, PA;
B.Sc. in Applied Math / Computer Science, 1988

EXPERIENCE

Systems Programmer — NEC / NEC Electronics / Renesas Electronics

November 1997 – Present (Tokyo, Japan)

- Designed and implemented a compiler infrastructure, which was the basis for a new C++ compiler at NEC.
- Ported Linux to the NEC V850 CPU architecture and various hardware environments using the V850; this included implementing many other necessary features and tools, such as fixing and extending V850 support in GCC, GDB, binutils, and the GDB simulator, a lot of work on uClibc and busybox etc.
- Ported GCC to the NEC 78K CPU architecture, and implemented an assembler, disassembler, and linker support for it.
- Wrote tools for benchmarking and analysis of various compilers for NEC processors.
- Wrote a highly-detailed simulation of the FlexRay embedded bus standard.

Systems Programmer — Free Software Foundation

February 1995 – November 1997 (Cambridge, Massachusetts, USA)

Part of a team designing and implementing the GNU Hurd operating system (an innovative multi-server OS running under the Mach kernel); wrote user tools, file-systems, low-level library support, tool support, and other infrastructure.

Research Associate — Human Communication Research Centre, Univ. of Edinburgh

February 1991 – February 1994 (Edinburgh, Scotland)

- Produced a CD-ROM of the Centre's large database of high-quality digitized speech, writing software to do high-quality sample-rate conversion, and user tools for doing rough segmenting.
- Ported CMU Common Lisp from Mach to SunOS.
- Implemented a machine independent declarative disassembler for CMUCL.
- designed various tools for linguistic analysis.

Systems Programmer — Information Technology Center, Carnegie-Mellon University

May 1987 – January 1991 (Pittsburgh, Pennsylvania, USA)

- Worked on the Andrew User-Interface Toolkit ("ATK"), from writing applications to low-level work on the underlying object system and toolkit internals.
- Designed and implemented a constraint-based WYSIWYG text layout object.
- Designed and implemented of OOPC, an object-oriented C front-end.

COMPUTER EXPERIENCE

* = Extensive experience

- Languages: C++*, C*, Lisp*, Lua*, Scheme*, Assembly*, Java, Objective-C, Perl, AWK, tcl
- Environments: Linux/Unix*, Windows, MacOS, DOS, TOPS-20, embedded platforms
- Fields/Subjects: ★ Highly experienced in compiler/programming-language and operating-system implementation ★ Very skilled at both high- and low-level (embedded, kernel, etc) debugging ★ Free/Open-Source Software (working on Emacs, Linux, GCC, binutils, and others) ★ Graphics (including Monte-Carlo pathtracing) ★ GUI toolkit design

LANGUAGES

Native English speaker; conversational Japanese

HOBBIES

Photography, Reading, Travel, Writing Graphics and FOSS Software