

Ben Fisher

Campus

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Permanent

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EDUCATION

Franklin W. Olin College of Engineering – Needham, MA

Candidate for BS in Engineering with Computing; GPA 3.78
Received four-year full-tuition Olin Scholarship

May 2010

EXPERIENCE

Avid Technology – Tewksbury, MA

Software Engineer Intern, Media Engine Infrastructure

May-August 2008

- Ported a large amount of C++ code to be compatible with modern libraries.
- Wrote low-level code focusing on memory usage, performance, portability across platforms, 64-bit architectures.

Libronix Research Systems – Bellingham, WA

Software Development Intern

June-September 2005, May-August 2007

- Made many graphical tools in C#/WPF and DHTML for managing a digital library of ancient texts.
- Created tag cloud and sparkline custom WPF controls, styles for dynamic Graphviz genealogy diagrams, a DHTML combo box, number and currency internationalization using C++, Unicode, XML. Wrote unit tests, checked coverage.
- Code and regular expressions recognize ancient weights and measurements in text, convert them into modern units.

WorldMusicLink Inc. – Needham, MA and Carmel, CA

Web Developer

October 2006 - May 2007

- Created working prototype of an online community website written in PHP. Designed structure of MySQL database tables, implemented DHTML/AJAX user interface, extensive JavaScript, graphic design in Photoshop.

Ferndale School District – Ferndale, WA

Fall 2005

- Independently designed and implemented an original online system for scheduling parent-teacher conferences. System purchased by district, now has over one thousand users. Focus on user interface clarity, stability, scalability.

College Coursework, Projects

2006 – Present

Software Design

Developed 3D simulations of colliding and rotating objects, software to visualize electromagnetic fields.

Principles of Engineering

Designed, built project using spinning LEDs to create persistence-of-vision image. PIC microcontroller.

Computer Architecture

Structural Verilog implementation of a simple RISC microprocessor, runs MIPS instruction set.

Notation Research

Researched design, implementation of musical notation software with Dr. Diana Dabby.

Foundations of Computer Science

Created MATLAB-like math interpreter program, uses Python-like language with new syntax for math, loops, lambdas.

Software Systems

Wrote working Linux shell in Python, added keyboard shortcuts for speed; lexes and parses input.

Other courses:

Artificial Intelligence, Modeling and Control, Signals, Analog & Digital Communication, Discrete Math, Linear Algebra

Independent Projects

1999 – Present

halfhourhacks.blogspot.com

Lists projects like gEdit regular expressions plugin, renaming and downloading utilities, an intermediate assembly language, PHP quoteboard with ratings, recursive shape drawing, Google Suggest game, customizable Unicode key mapping.

"Maurader's Map" of Olin College

Original project, uses wireless signal strengths to determine position, shows students' locations on campus as icons on a map.

Launchorz

Open-source project for Windows automation. Designated code-editor, well-documented.

Yaalp

Digital sound editor written from scratch, simple interface designed for children, C# code library for digital audio.

Audio Experiments

Real-time audio, synthesis, FFT, studying consonance, effects, beat detection, pitch detection.

Vivace MIDI (unreleased)

MIDI editor using computer keyboard instead of MIDI device. Multitrack recording, loads/saves MID files.

PythonPixels

Application for customizable image processing, especially made for custom filters and operations.

Fractal Screensaver

Created and sold screensaver with original fractal software, formulas, and artwork.

Achievements

- National Merit Scholar, Washington State Scholar, WWU President's Scholarship, Robert C. Byrd Scholarship
- Ferndale High School Valedictorian, 2006. GPA 3.99 of 4.00
- SAT: 800 Math, 790 Writing, 750 Verbal. ACT Composite: 34
- AP Scholar with Distinction: Score of 5 in Calculus, Physics, Biology, English, Spanish, and US History
- WSMC State Math Competition: 1st Place Team Topical, 2004 and 2005.
- Composer and pianist. Awarded 3rd Place in State WSMTA Musical Composition Contest, 2004.

Skills

Strong in Python, C++, C, PHP/MySQL, JavaScript, C#

Experience with user-interface design, unit testing, MATLAB, Photoshop, Linux