STUART OLSEN

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EDUCATION

Texas State University *Est. May 2015*
B.S. in Computer Science & Mathematics
National Merit Scholarship
President's Honor Scholarship
Overall GPA: 3.65

EXPERIENCE

Texas State University May 2013–Present
Research Assistant *San Marcos, TX*

- Author: *SQLPhi: A SQL-Based Database Engine for Intel Xeon Phi Coprocessors*
- Programmer: SQLPhi Database Engine
- Cluster administrator: Marcher Online Compiler
  - CentOS 6/7
  - Open Grid Scheduler
  - CUDA GPGPUs
  - Intel Xeon Phi Coprocessors
- Programmer: Marcher Online Compiler
  - Power measurement utilities
  - System scripts

TECHNICAL STRENGTHS

Programming Languages	C, C++, Common Lisp, MIPS Assembly, CUDA
Libraries	C++ Standard Library, GMP, OpenMP, MPI
Tools	Git, Emacs, GDB, LaTeX
Systems	RedHat- and Debian-based Linux systems

Additional limited experience with:

- Java
- Python
- NesC
- IA32/EM64T Assembly
- Lexx and Yacc
- Vim

ACADEMIC BACKGROUND

Computer Science

- Embedded Computer Systems
- Computer Architecture
- Parallel Programming
- Unix Systems Programming
- Operating Systems
- Program Translators
- Assembly Language
- Data Structures
- Object-Oriented Design and Implementation

Mathematics

- General Topology
- Analysis (I and II)
- Differential Equations
- Calculus (II and III)
- Linear Algebra
- Modern Algebra
- Discrete Math (I and II)

CODING PROJECTS

Compilers

- Compiler for C-like language to MIPS (C++)
  - SystemV ABI

Operating Systems

- IBM PC-compatible protected-mode kernel (C)
  - Interrupt-driven I/O
  - UART I/O with hardware buffering support
  - PS/2 keyboard input
  - VGA text output
  - Basic cooperative multitasking

Parallel Programming

- Mandelbrot set renderer (C++)
  - Accelerated with CUDA and OpenMP
  - Run time–selectable supersampling

Architecture

- MIPS emulator (C)
  - Branch prediction statistics
  - Cache hit/miss statistics
  - Pipeline simulation