Stuart Olsen

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Education

Texas State University – 2015

- B.S. in Computer Science & Mathematics
- National Merit Scholarship
- President's Honor Scholarship
- Overall GPA: 3.65

Computer Science

Embedded Computer Systems
Computer Architecture
Parallel Programming
Unix Systems Programming
Operating Systems
Program Translators
Assembly Language
Data Structures

Mathematics

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

Technical Skills

Programming Languages

- C and C++
- MIPS Assembly
- IA32 Assembly
- CUDA
- Common Lisp
- LaTeX
- Java
- NesC

Tools and Libraries

- RedHat- and Debian-based Linux systems
- GNU toolchain and GDB
- C and C++ Standard Libraries
- OpenMP and MPI

Work Experience

Research Assistant
Texas State University

May 2013 – Present

- 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

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