Software Engineer

Summary

Software engineer particularly interested in the design and implementation of compilers and virtual machines.

Work Experience

August Software Engineer, JVM | Azul Systems | Sunnyvale, California

2013— Compiler engineer on the JVM team.

Current

May Software Engineering Intern | Google | München, Germany

2012–July I interned on the V8 / Chrome team and worked on moving some phases of the optimizing Javascript 2012 compiler's (Crankshaft's) pipeline to a dedicated compiler thread.

July 2011– Intern (Off-site) | Igalia

December I worked on **gdb**, implementing a new, simpler debug info protocol for JIT compilers. 2011

May 2011– Google Summer of Code Student | The LLVM Compiler Infrastructure

September I implemented support for **segmented stacks** in **llvm** for x86. This allows llvm generated code to incrementally allocate the native thread stack at runtime.

Skills & Expertise

Skills

My core competencies are virtual machines and compilers. Besides that I have dabbled in type-theory and programming language semantics. I'm most comfortable with x86 linux systems.

Programming Languages

Most of the production code I've written is in C++ and C. I have used **Haskell** in non-trivial personal projects and am familiar with **Java**, **Agda** and **Python**.

Education

2008–2013 Master of Science, Bachelor of Science | Indian Institute of Technology Kharagpur
Mathematics & Computing