Matthew Plant

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Education and Training

Received a Bachelor's degree in Computer Science from the engineering college of the University of Illinois at Urbana-Champaign in May of 2017.

Objective

Software engineering positions that require researching and solving interesting problems with a focus on low-level systems preferred.

Experience

Programming Languages:

• C • C++ • Python • Java • Go • Rust • Erlang

Familiarity with the following operating systems:

- GNU/Linux, including various distributions such as Fedora and Ubuntu
- Microsoft Windows
- Unity 3D with Occulus technologies
- Git and SVN
- OpenGL

Significant programming achievements:

- Becoming a member of the ALLVM research group at University of Illinois at Urbana-Champaign
  - `https://www.allvm.org`
  - Wrote a senior thesis on using Gated SSA to detected duplicate basic blocks.
- Maintaining a website with many interesting articles on programming: `http://maplant.com`
- Implementing On Stack Replacement for LLVM's McJIT for the graduate level class CS 526 Compiler Construction.
- Designing and implementing an interpreted programming language during first year of highschool
  - Over 9,500 lines of C code. Includes a virtual machine, recursive-descent parser and bytecode compiler.
  - `https://github.com/DataAnalysisCosby/FACT`

Relevant classes taken:

ECE 391 Computer Systems Engineering:	A	CS 450 Numerical Analysis:	B-
CS 498 Algorithms and Models of Comp.:	B	CS 423 Operating System Designs:	B+
CS 426 Compiler Construction:	A	CS 526 (grad) Advanced Compiler Construction:	A-

Relevant positions held:

Software engineering intern, Google Inc. **June of 2016 - Aug. of 2016**

- Full title: Software engineering intern, tools and infrastructure.
- Working with Xbox One and PS4 developer kits to automate testing of YouTube and similar products.

Software engineering intern, Google Inc. **June of 2015 - Aug. of 2015**

- Working on the Census team cleaning and fixing a large and integral code base.
- Adding new heap tracking features to the core profiling tools, making the code base standard compliant.

Software engineering intern, Google Inc. **June of 2014 - Aug. of 2014**

- Writing a refactoring tool in C++ to rename symbols accross multiple C++ source files.
- Upstreaming the refactoring tool to the Clang project.

Programming intern, Intuit Inc. **Aug. of 2011 - Aug. of 2012**

- Porting iPhone software to the Android platform.
- Writing optical character recognition software for use in extracting data from checks and bills.