

# Robert Kernan

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<https://github.com/kernan>

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## EDUCATION

**Georgia Institute of Technology**, Atlanta, GA  
Bachelor of Science in Computer Science  
Focus in Information Internetworks and Platforms

*August 2013*

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## TECHNICAL SKILLS

### Languages

• C • C++ • C# • Java • Lua • PHP • Python • Ruby

### Operating Systems

• Windows 7 • GNU/Linux

### Software

• Ant • Clang • CMake • Eclipse • GNU Compiler Collection • Make • MySQL • SQLite • Visual Studio

### Revision Control

• Git • Mercurial • Subversion

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## WORK EXPERIENCE

**Southern Polytechnic State University**, Marietta, GA  
Lab/Teaching Assistant for CSE 1302: Introduction to Data Structures

- Assigned lab-work and taught supplemental material.
- Maintained office hours in the lab for students.
- Submitted software requests for lab equipment.

*May 2010 – July 2010*

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## PROJECTS

### Vector Math Library

<https://github.com/kernan/math>

Built and currently maintaining a C++11 header-only library containing generic size and type vector and matrix implementations with specializations for 2, 3, and 4-dimensions. Includes a unit test suite built using Boost.

*April 2014 – Present*

### Graphics Engine

Building a simple, cross-platform (Windows and Linux currently) graphics engine using OpenGL as the rendering backend. Current goals are implementing a more advanced input handling system and adding lighting primitives to the scene.

*July 2013 – Present*

### Geopost

<https://github.com/spardue/geopost>

Designed and developed a REST API for creating geo-tagged content using Python. Collaborated to build an HTML5 front-end that displayed geo-tagged content on a map using the Google Maps Javascript API.

*June 2013 – August 2013*

### Massive Open Online Course (MOOC) Teaching Assistant Manager

<https://github.com/kernan/MOOC-TA-Management>

Collaborated to design and build a web application for testing and managing teaching assistants for MOOCs using Ruby on Rails; utilized Twitter Bootstrap to create a reactive front-end. Included a REST API for all functionality.

*January 2013 – April 2013*

### International Community School Joomla Intranet

Collaborate to modify and complete an intranet using Joomla that enabled teachers to communicate with students about assignments and upcoming events.

*March 2012 – May 2012*

### Parser Generator and Regular Expression Language Interpreter

Created scanner, parser, and interpreter in Java for a regular expression language that could find, remove, and replace text patterns in a file. The scanner and parser tables were not language specific and could be generated by feeding the program a context-free grammar.

*November 2011 – December 2011*