

## Alec B. Lownes

[Sensitive contact information removed]

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[aleclownes.com](http://aleclownes.com) - [github.com/cakenggt](https://github.com/cakenggt)

### Summary

Professional software engineer with experience working in a number of capacities including server backend, web frontend, database access, and design specification writing. Leverages self-led CS education for fast adaptation to new environments, platforms, and languages.

### Technical Tools

Python 2/3, JavaScript, JQuery, Node, Java, J2EE, SQL, Android SDK, Hibernate, CSS, Spring MVC, JUnit, Eclipse, Atom, Toad, NetBeans, PyCharm, IDLE, Django

### Industry Experience

#### *Software Engineer*

Warrendale, PA

#### *Performance Review Institute*

August, 2014 - Present

- Part of a 4 person team supporting and developing the company's internal systems for Aerospace, Medical, and Transportation Audits
- Author design specifications for enhancements of all sizes
- Participate in large system enhancements touching all parts of the system
- Enhancement and bug fix work including SQL database scripts; frontend JavaScript, JQuery, HTML, and CSS; and backend Spring MVC and Hibernate
- Code reliability enabling International Trade and Arms Regulation (ITAR) information storage on the system
- Machine Learning Lead: Work with TensorFlow to predict audit failure chance ahead of time

#### *Shift Leader/Crisis Counselor*

Berkeley, CA

#### *Crisis Support Services of Alameda County*

September 2012 - January 2014

- Speak with individuals in crisis over the phone to help manage their current and near-future situations
- Coordinate the crisis room and work with local law enforcement to rescue individuals in imminent danger
- Responsible for filing elder and child abuse reports to the local authorities

### Personal Projects

#### **Minecraft Plugins** - 25,000+ total downloads

##### *SpellScript*

- Enables JavaScript parsing and execution in-game for custom "spell" writing
- Multithreaded design lets multiple scripts run simultaneously while hooking into the single-threaded Bukkit server implementation safely

##### *Ollivanders*

- Adds 100+ spells from Harry Potter as well as numerous minor effects such as Lycanthropy, Floo Powder, etc.
- Over 7,000 downloads and multiple plugin spotlight videos. Currently running on 40 servers

#### **Node Libraries**

##### *trinity-sim*

- Node implementation of the Trinity study utilizing financial data up to 2016
- Browser or library branches allowing for quick simulations or meta-analysis

##### *neurotic*

- Multilayer perceptron neural net library with visualization tool
- Built-in analysis functions tell you which data sets are the weakest and the cost to accuracy of removing them, for pruning purposes

#### **Independent Games**

##### *Dot Slash Hack*

- MMORPG written in Node to help motivate computer science education in children
- Use of WebSockets and compartmentalized front-end code execution allows for on-the-fly "spell" construction/execution
- Redis and PostgreSQL data storage for maximum scalability of both map area and user data

### Education

Bachelor of Science in Psychology  
Wright State University

Dayton, OH  
March 2012