

# Stephen Stack

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## OBJECTIVE

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To continue my role in the technology industry as a Software Engineer. The always growing industry of computer engineering is something for which I have a true passion. My goal is to continue on a career path that capitalizes on this interest and allows me to grow as a programmer and engineer, in turn becoming a valuable asset to a thriving organization.

## TECHNICAL SKILLS

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### Programming

#### Python

- Strong Python Coder with solid Object Oriented driven design.
- Worked with hundreds of libraries from the standard lib as well as packages from the community.
- Most of my projects use some combination of Buildout (for development env setup), Sphinx (for developer docs), Nose (for unit testing) and Fabric (for automated deployment). I've helped define this basic development setup and process for Python projects in my current role.

#### Java

- Focus of my undergraduate work, wouldn't take long to get up to speed.

#### SQL

- Have experience building complex Relational Database systems and maintaining them with Python.

#### Web Languages (Javascript, JQuery, Html, CSS)

- Fairly competent web developer, however not usually anything customer-facing (mostly for developer tools, etc.)
- I usually try to incorporate some HTTP based system for testing an application (given the time and budget on the project), whether that be a full-blown webpage or just an RPC API. I've found this to be an easier approach than building a CLI or something into your application for testing.

#### C/C++

- I work closely with many C programmers and am exposed to it frequently. I have also written a few programs for the Arduino micro-controller.

### Testing

- Strong advocate for test-driven design when the schedule allows.
- Unit testing and automated test servers are a must.
- Other types of testing also prove beneficial for components that are not easily unit-tested. This is where I may incorporate a testing webpage or some other system test.

### Code Management

- Advanced user with Git, Hg and SVN.
- Technologies including Github, BitBucket, Gerrit, Stash, Kiln and PyPi allow me to maintain a productive and collaborative workday.

### Documentation

- Beyond developer and API docs, I am well versed in documents such as

requirements, estimates and design docs.

- I leverage the use of technical diagrams such as state machines, flow control diagrams and sequence diagrams whenever possible.

### Platforms

- Advanced user with Linux distributions.
- I primarily run Linux on all of my PC's at home and work for development and personal use.
- Experience with Windows development as well.

### IDE's

- Eclipse is my primary IDE and one that I use quite effectively.
- Text-based editors like VIM are also in my tool belt if the situation arises.

## EDUCATION

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**Bachelor of Science, Major:** Computer Science **Minor:** Psychology  
Winona State University (WSU), Graduation May, 2011

### Coursework

Data Structures	Networking
Principles of Programming Languages	Human Computer Interaction
Computer Systems	Database Management Systems
Software Engineering	Computer Security
Object Oriented Design/Development	Artificial Intelligence

## JOB EXPERIENCE

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### **Spectrum Design Solutions**, May 2011 – Present (2 Years+)

- Headquartered in downtown Minneapolis, MN, we are a premier embedded design firm that is willing to take on any job.
- My current role as Software Engineer has me designing and constructing complex applications using primarily Embedded Linux and Python.
- I work on cutting edge projects that use a wide array of end to end technologies.
- The work that I do can vary greatly from project to project, I could be writing a serial protocol to talk to a bare-metal microcontroller one day or designing a RESTful web API with a JS/JQuery dashboard the next.
- Unique opportunity to be closely involved with Firmware and Hardware engineers, which requires that I understand the system at a comprehensive and low level in order to write effective software.
- The projects I am responsible for require that I work very closely with the customer and on occasion, report directly to the customer. This exposure has helped me develop best practices that ensure quality results and good communication skills.

### **Software Testing and Development Lab (WSU)**, Dec 2009 – May 2011 (1 Year, 6 Months)

- Part of a development and testing team working closely with clients such as Digi International, Readers Digest and Watlow.
- Developed and tested for both hardware and software.

### **Teaching Assistant (WSU)**, January 2011 – May 2011 (5 Months)

- Assisted professors with introductory courses in object oriented programming using Java.

- Answered questions from students during class, as well as graded programming assignments.

**APX Certified Alarm Technician,** May 2009 – July 2009 (3 Months)

- Provided a good hands-on networking experience for wireless devices.
- Main task was to setup wireless security systems in residential neighborhoods, exposed me to out-of-the-box devices that were configurable to suit various installations.

## **ACTIVITIES, HOBBIES & INTERESTS**

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- I enjoy working on side projects like Android apps, personal website, Python libraries, Arduino projects and others.
- I love to snowboard but Minnesota isn't cutting it anymore.
- Music, going to shows, concerts, etc.
- Being outside, even though I love computers too much.

## **REFERENCES**

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I highly encourage employers to contact my set of references, which includes members from management as well as engineering coworkers. However, I'd like to be notified first and at that point I can provide contact information.