Stephen Stack

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OBJECTIVE

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. Eventually, becoming a technical lead and manager will become a goal and priority of mine but currently I am having fun designing and building elegant software as part of a smart and motivated team.

TECHNICAL EXPERIENCE

Full-Stack Developer

Python
- Strong Python coder with solid Object Oriented driven design.
- Python is my tool of choice to do most of the "heavy lifting" in a full-stack application.
- WSGI web frameworks such as Pyramid, Django, Bottle, Flask, and CherryPy.
- ORM's such as SQLAlchemy and Django's built-in.
- Very experienced with environment setup, deployment and testing of Python applications. Some of the tools at my disposal for these tasks include Buildout, VirtualEnv, Pip, Fabric, Unittest, and Nose.

Java
- The main language used for all of my undergraduate work.
- Capable of writing large Java applications.
- Limited Android experience but am working on a few side-projects.

JavaScript
- Written a lot of JavaScript.
- Currently working on a pure Javascript side-project using Node.js and Meteor.js.
- Experienced using the functional qualities of JavaScript as well as the Object Oriented styles of Javascript using prototypes and classical inheritance using functions.

Database
- Strong understanding of relational databases using MySQL.
- Plenty of exposure and experience using NoSQL databases such as MongoDB.
- Experience designing and documenting complex database schemas and models.

JQuery, HTML, CSS
- Built highly functional web frontends.
- Know my way around frontend JS libraries like Bootstrap and Angular.

C/C++
- Working closely with firmware developers is a part of every day in my current role, this exposure has been great experience.
- Commonly interfacing with "bare-metal" C applications across serial or wireless mediums, as a result I am often looking and debugging C code.
- Have written a variety of C/C++ programs on my own free time.

M2M

The company that I currently work for is a M2M (machine to machine) company, we make devices talk to other devices. Albeit I am one of the "highest level" programmers in the entire company, I still have worked on dozens of "low level" projects and have experience with things like:

- Wireless/Wired protocol definition and implementation. Typically TCP, Serial, ZigBee or custom.
- Embedded OS development, primarily embedded Linux.
- Resource-constrained systems such as low Memory or persistent storage.

RPC/IPC

- JSON-RPC / XML-RPC
- Apache Thrift / Protocol Buffers

Testing

- Testing is a way of life and it's very rare that any feature or bug fix I'm working on isn't accompanied by unit tests.
- Strong advocate for test-first development and continuous integration (Jenkins, etc).
- Beyond unit tests, automated functional testing is another best practice I'm passionate about.

API-Design

Designing a clean API is half of the battle and is something that I am tasked with very frequently. The API could be a RESTful HTTP API, JSON-RPC or some other version of inter-process communication but the same concepts typically apply.

Documentation

Well versed creating technical documentation:

- API Specs (sometimes I write code to generate these for me)
- Software design/architecture documents
- Protocol definition documents
- Requirements documents
- Testing documents
- Technical diagrams (state machines, flow control, sequence diagrams)

Source-control/Collaboration

- Very advanced user with Git, Mercurial (Hg), SVN.
- I think code reviews and pull requests are very important even on small projects, a second set of eyes is never a bad thing.
- Tools like Jira, GitHub, Stash, Bitbucket are all very important for the organization and success of projects.

Misc

- Advanced user with Eclipse, PyCharm, Sublime text, etc.
- Advanced user with Linux/Windows/Mac (Primarily Linux).

EDUCATION

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

CAREER

Etherios Design Services, *May 2011 – Present (2 years, 8 months +)*
- 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), *December 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.

WHO AM I?

I am a 26 year old college graduate currently living in Minneapolis, Minnesota. I love writing code and being part of a community with others who share that passion. However, building great software isn't all that I do. I thoroughly enjoy being outside in the sun, throwing a Frisbee, laying on the beach or just genuinely having a good time living in the moment. In the evenings and weekends I enjoy going to new restaurants, hitting up the local dive-bar from time to time, or just staying in and playing video games. I am constantly working on side projects and have been hosting hack-sessions at my apartment over the past months working on a pure Javascript (Meteor.js) web-application that should be released to the public in the near future. I currently have a very strong desire to move to the Bay area and will be making that happen over the next few months.

Feel free to check out my website for additional information! -- stephenstack.com

REFERENCES

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.