# **Timothy Overly**

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# **Experience:**

SPIDAWeb LLC

Gahanna, Ohio

Software Development and Analysis Engineering

August 2007 – July 2017

# Web Developer

- Designed and programmed multicomponent service-oriented web applications using various frameworks and design patterns.
- Wrapped external web services into common interfaces for modular designs.
- Diagnosed and tuned large datastores for sub-second response times.
- Installed and supported containerized deployments inside corporate and cloud environments.

# Desktop Developer

- Involved in all aspects of the development of the company's primary desktop application, including design, development, and testing.
- Wrote a finite element analysis package, that accounted for geometric non-linearities, catenary wires, pre-stressed components, and temperature affects to determine loading and stresses in utility pole structures.

# Development Manager

- Managed the team responsible for the development, maintenance and support of the company's software products.
- Served as the primary technical contact for internal design processes and external customer interactions.
- Implemented continuous integration testing, code review, and feature development cycles to support a more robust development process.

## Los Alamos National Laboratory

Engineering Institute

Los Alamos, New Mexico
May 2006 – July 2007

## Graduate Research Assistant

- Designed, built, and tested small electronic devices for use in structural health monitoring applications.
- Programmed in MATLAB and C to control external hardware for data acquisition and analysis.
- Developed a sensor diagnostic algorithm for use with piezoelectric sensor/actuators and implemented it in software.

#### Los Alamos National Laboratory

Los Alamos, New Mexico

Dynamics Summer School

*June* 2005 – *August* 2005

# **Engineering Intern**

- Worked as part of a multi-disciplinary team to implement an algorithm that used natural frequencies to detect damage in a structure.
- Correlated test results to a theoretical model for plant identification and controller implementation.

#### Robert Bosch GmbH

Stuttgart, Germany

Central Research and Development Center

April 2001 – September 2001

Praktikant

- Programmed a climate chamber measurement system using Visual Basic to improve data collection and decrease measurement time by eighty percent.
- Developed a test protocol and programmed measurement systems to qualify new magnetic antilock brake sensors.
- Designed and constructed fixtures for testing existing products within magnetic fields.

# **Computer Skills:**

Languages	Frameworks	Databases	<b>Build Tools</b>
Bash	EmberJS	MySQL	Ant
C	Grails	MongoDB	Gradle
Groovy	NodeJS	Oracle	Grunt
JavaScript	React	PostgreSQL	Ivy
Java	Ruby on Rails	Redis	Maven
Ruby	Sinatra	SQL Server	Rake
Other Syntaxes	<b>Testing Frameworks</b>	CI Systems	<b>Deployment Tools</b>
CSS/SCSS	Jasmine	CircleCI	Docker
HTML	JUnit	CodeCov	Google Cloud
JSON	Mokito	Jenkis	Heroku
LaTeX	Spock	Travis CI	httpd
Markdown			Tomcat
XML			NGINX
<b>Design Concepts</b>	<b>Operating Systems</b>	Protocols	<b>Version Control</b>
Agile/Scrum	Linux	REST	Git
IoC	OS X	SOAP	Subversion
MVC	Windows	SSL	
SOA			

## **Education:**

**University of Cincinnati** Department of Mechanical, Industrial and Nuclear Engineering *Masters of Science in Mechanical Engineering - 2007* 

- Structural Dynamics
- Advanced Vibrations
- Finite Element Techniques

**University of Cincinnati** Department of Mechanical, Industrial and Nuclear Engineering **Bachelor of Science in Mechanical Engineering - 2002** 

• International Engineering Certificate

# **Open Source:**

- *Resume* (author) the code that was used to generate this document
- Truck Circuit (author) an arduino project with matching cicuit diagram for a halloween costume
- SmartThings (author) device handler to control a whole house fan
- *Dot Files* (author) series of scripts to make configuring a computer quick and consistent
- SHM Tools (contributor) a package of engineering tools used in structural health monitoring