Timothy Overly

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Experience:

SPIDAWeb LLC — **Gahanna, Ohio**
Analysis Engineering and Software Development — *August 2007 – Present*

Web Developer

- Designed and programmed multicomponent service-oriented web applications using the various frameworks and design patterns.
- Wrapped external web services into common interfaces for a modular designs.
- Diagnosed and tuned large datastores for sub-second response times.

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 geometricically non-linearity, catenary wires, pre-stressed components, 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 during the design process 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 — **Los Alamos, New Mexico**
Engineering Institute — *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

TK Engineering — **Cincinnati, Ohio**
Analysis Engineering — *August 2005 – April 2006*

Engineering Apprentice

- Constructed two and three dimensional finite element models of aircraft engine parts for modeling heat transfer, stress and life
- Automated boundary condition application through the programming of macros in ANSYS

Los Alamos National Laboratory — **Los Alamos, New Mexico**
Dynamics Summer School — *June 2005 – August 2005*

Engineering Intern

- Worked as part of a multidisciplinary 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 anti-lock brake sensors
- Designed and constructed fixtures for testing existing products within magnetic fields

Enable Medical **Cincinnati, Ohio**
Product Engineering *June 1999 – August 2000*

Manufacturing, Research and Development Co-op

- Designed and constructed prototype devices for use in treating heart disease that led to a device being taken to market
- Performed primary testing and qualification before product release for both endoscopic and open surgery devices

Computer Skills:

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