TIMOTHY OVERLY

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Experience:

SPIDAWeb LLC   **Columbus, Ohio**
Lead Developer/Manager: Analysis Engineering and Software Development   *August 2007 – Present*
- Managing a team responsible for the development, maintenance and support of the company's software products
- Designed and programmed multicomponent service-oriented web applications using the Grails framework
- Wrapped external web services into common interfaces for a modular design
- Implemented continuous integration testing, code review and feature development cycles to support a more robust development process
- Tuned databases with more than five million entries for sub-second response times
- Specified and implemented a server-based license system in Ruby on Rails
- Wrote a finite element analysis package to determine loading and stresses in utility pole structures
- Programmed a graphical user interface in Java for the building, viewing and editing of utility pole structures

Robert Bosch GmbH   **Stuttgart, Germany**
Praktikant: Central Research and Development Center   *April 2001 – September 2001*
- 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

Los Alamos National Laboratory   **Los Alamos, New Mexico**
Graduate Research Assistant: Engineering Institute   *May 2006 – July 2007*
- 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**
Engineering Apprentice: Analysis Engineering   *August 2005 – April 2006*
- 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**
Engineering Intern: Dynamics Summer School   *June 2005 – August 2005*
- 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

Enable Medical   **Cincinnati, Ohio**

Manufacturing, Research and Development Co-op: Product Engineering   *June 1999 – August 2000*

- 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 Systems	Testing Systems	Other Syntaxes
Java	Grails	PostgreSQL	Maven	JUnit	HTML
Groovy	EmberJS	Oracle	Ant	Mokito	CSS
Ruby	NodeJS	SQL Server	Ivy	Jenkins	Markdown
JavaScript	Sinatra	Redis	Grunt	Jasmine	LESS
CoffeeScript	Ruby on Rails	MySQL	Rake	CircleCI	SCSS
Bash		MongoDB	NPM	Travis	XML
MATLAB			Gradle		JSON
C					LaTeX
SQL					

Deployment Servers	Operating Systems	Protocols	Version Control	Design Concepts
Tomcat	OS X	REST	Git	MVC
httpd	Linux	SOAP	Subversion	IoC
Google Cloud	Windows	SSL		SOA
Heroku				Agile
				Scrum

Education:

University of Cincinnati   **Cincinnati, Ohio**

Department of Mechanical, Industrial and Nuclear Engineering

M.S. in Mechanical Engineering - June 2007   *B.S. in Mechanical Engineering - June 2002*
- Structural Dynamics/Advanced Vibrations   • International Engineering Certificate   **University of Cinc**
- Finite Element Techniques   *Department of Mech*

M.S. in Mechanical Engineering - June 2007   *B.S. in Mechanical Engineering - June 2002*
- Structural Dynamics/Advanced Vibrations   • International Engineering Certificate
- Finite Element Techniques

Open Source:

- *Truck Circuit* (author) an arduino project with matching cicuit diagram for a halloween costume
- *Apply* (author) a small tool that can be used as a test for developer resume submittal
- *Classpath Helper* (author) series of script tools to help diagnose classpath issues in java jars/wars
- *SSL Helper* (author) script to help generate self-signed certificates for apache tomcat and httpd
- *SHM Tools* (contributor) a package of engineering tools used in structural health monitoring