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
- Programmed a graphical user interface in Java for the building, viewing and editing of utility pole structures
- Wrote a finite element analysis package, that included both linear and geometricically nonlinear analysis, to determine loading and stresses in utility pole structures

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

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

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	Test Systems	Continous Integration
Groovy	EmberJS	MySQL	Ant	CircleCI	CircleCI
JavaScript	Grails	MongoDB	Gradle	Jasmine	Travis CI
Java	NodeJS	Oracle	Grunt	Jenkis	CodeCov
Ruby	ReactJS	PostgreSQL	Ivy	JUnit	Jenkis
	Ruby on Rails	Redis	Maven	Mokito	
	Sinatra	SQL Server	Rake	Spock	
				Travis	

Other Syntaxes	Deployment Systems	Design Concepts	Operating Systems	Protocols	Version
CSS	Google Cloud	Agile	Linux	REST	Subversio
HTML	Heroku	IoC	OS X	SOAP	Git
JSON	httpd	MVC	Windows	SSL	
LaTeX	Tomcat	Scrum			
Markdown					
SCSS					
XML					

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