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

OPEN SOURCE PROJECTS:

- *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