

# Timothy Overly

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## Experience:

### Root Insurance

*Engineering*

**Columbus, Ohio**

*Aug 2021 – Present*

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#### Director of Engineering

- Evolved a minimally viable product from launch to a reliably maintained and deployed application
- Made and implemented key decisions to migrate backend systems to increase developer productivity
- Directly developed features in partnership with Product Managers
- Implemented many core team processes including interviews, retros, code reviews, standups, and showcases.

### Root Insurance

*Engineering*

**Columbus, Ohio**

*July 2017 – Present*

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#### Senior Engineering Manager

- Maintained insight and ensured the progress of four engineering teams' deliverables.
- Coached directly and through other leaders the 25+ engineers in my organization.
- Implemented multiple processes that minimized redundant work, ensured critical issues were addressed, and balanced immediate and long-term needs.
- Set the technical direction and vetted overall architecture improvements of my functional group.

#### Engineering Lead

- Lead the team that implemented our in-house claims system and imported existing claims from an external vendor in a three-month window.
- Oversaw the work and reviewed the code of members of my team during the weekly sprint cycles.
- Triaged bugs and maintained systems during the weekly rotations.

#### Senior Software Developer

- Implemented features across the full stack, from the Rails backend systems through to the React client-side application.

### SPIDAWeb LLC

*Software Development and Analysis Engineering*

**Gahanna, Ohio**

*August 2007 – July 2017*

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#### 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 effects to determine loading and stresses in utility pole structures.

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**Head of Software Development**

- 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.

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**Los Alamos National Laboratory***Engineering Institute***Los Alamos, New Mexico***May 2006 – July 2007*

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**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.

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

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**Engineering Apprentice**

- Constructed both 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.

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

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**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.

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

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**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.

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

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**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	React	PostgreSQL	Maven
Java	Ruby on Rails	Redis	Rake
Ruby	Spring	SQL Server	
	Vue.js		
Other Syntaxes	Testing Frameworks	CI Systems	Deployment Tools
CSS/SCSS	Mokito	BuildKite	AWS
HTML	Jasmine	CircleCI	Docker
JSON	JUnit	Github	Google Cloud
LaTeX	RSpec	Jenkins	Heroku
Markdown	Spock	Travis CI	httpd
XML			NGINX
			Tomcat
Design Concepts	Operating Systems	Protocols	Version Control
Agile/Scrum	Linux	GraphQL	Git
IoC	OS X	REST	Subversion
MVC	Windows	SOAP	
SOA		SSL	

**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 circuit 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