dthomas.io
LinkedIn.com/in/dtswe

DERICK THOMAS

Portland, OR
derick.thomas.me@gmail.com

WORK

Section Properties Calculator | VisualCalcs.com/spcLite Video + Code

Developed for VisualCalcs, SaaS CAD software that finds structural properties for beams used in civil and aerospace engineering. Implemented an in-browser drawing program using JavaScript, HTML, CSS, and Canvas. Developed an API in Python using Flask that calculates section properties for structural shapes with accuracy comparable to any CAD software.

Snippet Saver | dthomas.io/SnippetSaver Video + Code

A tool enabling developers to create, organize, browse, and share code snippets. Implemented a full stack application deployed on Heroku using React, Bootstrap, NodeJS, MongoDB, Mongoose, Express, and Jest. JWT authentication allows users to log in, create personal snippet collections, view and search globally available snippets, edit snippets, delete snippets, and manage account settings.

EMPLOYMENT

Full Stack Developer | **VisualCalcs** | **October 2019 - Present**

- Architected, developed, and released two full-stack SaaS applications that provide intuitive, visual methods for calculating mathematical properties of shapes.
- Created website, integrated member-management and payment processing software, and created all documentation for VisualCalcs.com.

Structures Engineer | **Altech Aerospace** | **August 2018 – March 2020**

- Developed Python automations to accomplish a structural analysis of major modifications to a fleet of Airbus A330s. A 24 week-long project was completed in 8 weeks to meet client needs.
- Collaborated with a team of 10 engineers acting as author or reviewer for over 150 structural analyses of repairs performed on commercial aircraft operated by major US carriers.
- Responded to urgent customer requests for repair design and analysis, coordinated with FAA to obtain airworthiness approvals, and communicated with mechanics to gather requirements and deliver solutions.

Mechanical Engineer, Intern | **Tektronix** | **September 2017 – June 2018**

- Designed a manufacturing system for a $10M/year military avionics product that reduced scrap by 20%.
- Collaborated with an international engineering team to design fixtures for electronics manufacturing.

Mechanical Engineer, Intern | **Daimler** | **April 2016 – September 2016**

- Implemented a database query tool using Python that reduced BoM search time by 80%.
- Designed, prototyped and tested components used in the powertrain of the premier Freightliner vehicle.

Musician/Music Teacher | **Self-Employed** | **March 2011 – September 2014**

- Performed and recorded with multiple groups, managed a teaching studio, and taught lessons and classes.

EDUCATION

Portland, OR | **Portland State University** | **September 2014 – June 2018**

- Bachelor of Science, Mechanical Engineering. In-major GPA: 3.8.
- Computer Science Capstone Project: Led team and coded firmware in C for an ARM-based microcontroller system that remotely monitors the health and status of wind turbines.

Eugene, OR | **University of Oregon** | **September 2010 – June 2014**

- Bachelor of Arts, Music Performance: Jazz Studies.