Thomas J. Stepp

630-842-1284
tom.j.stepp@gmail.com

PROFESSIONAL EXPERIENCE

Software Engineer, Boeing AvionX — December 2017 – Present
- Architect of continuous integration suite for flight software team of 150 developers
- Develop website to provide accessible software metrics to enable management decisions
- Streamlined code generation times from 10 to 1.5 hours via parallelization and caching server
- Scrum master for Model-Based Development Processes and Tools team
- Plan and lead team through software upgrades of Matlab, Atlassian products, and Git

Network Engineering Intern, Facebook — Summer 2016
- Created scripts for automation of network switch testing with Tcl and Ixia hardware API
- Developed driver for IC chip with C++ to improve Wedge100 switch function and reliability
- Assisted with switch setup and procedure standards to maximize the team's productivity

Systems Engineering Intern, GE Aviation — Summer 2015
- Produced MATLAB software tools to automate test validation for LEAP and Passport 20 engines

Data Analyst Consultant, McDonald's Corporate — Summer 2014
- Created a process to standardize the financial coding of 20,000 products sold on the website

EDUCATION

University of Southern California — Summer 2021
- M.S. in Computer Science
- Relevant Courses: Web Technologies, Database Systems, Analysis of Algorithms

Purdue University — May 2017
- B.S. in Electrical Engineering
- Relevant Courses: Software Engineering Tools, Algorithms & Data Structures, OO Programming

Universidad Carlos III de Madrid (Study Abroad) — Spring 2016
- Completed engineering courses and projects in a culturally diverse environment

DESIGN PROJECTS

React News Website — Spring 2020
- React front-end allows users to browse, share, and bookmark news articles from their browser
- Node.js + Express back-end provides news articles from the NY Times and The Guardian APIs

Flask News Website — Spring 2020
- Plain JavaScript front-end provides user search, word-cloud, and slideshow of top articles
- Python + Flask back-end provides news articles from Fox News & CNN via Google News API

UNIX Socket Programming — Spring 2019
- Five C/C++ programs which provide system for storing, querying, & calculating network delays

USB Audio Headphone Amplifier — Spring 2017
- Programmed Tiva Microcontroller in C to display volume meter and equalizer
- Interfaced with touchscreen to display GUI, and digital potentiometers via SPI

Computer Security Python Projects — Spring 2017
- Used Python to write encryption algorithms such as AES and RSA
- Wrote firewall filters and buffer overflow attack programs

Game Programming — Fall 2016
- Created Super Mario-like game for Windows machines in Java
- Created the classic Zork text-based game in C++ to play on a terminal

LEADERSHIP EXPERIENCE

Community Outreach Focal, Boeing (Long Beach Site) — Summer 2018 - Present
Faculty Committee Chair, ECE Student Society — 2015-2017
Eagle Scout, Boy Scouts of America — January 2012