

Thomas J. Stepp

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PROFESSIONAL EXPERIENCE

Software Engineer, Boeing AvionX	December 2017 – Present
<ul style="list-style-type: none">Architect of continuous integration suite for flight software team of 150 developersDevelop website to provide accessible software metrics to enable management decisionsStreamlined code generation times from 10 to 1.5 hours via parallelization and caching serverScrum master for Model-Based Development Processes and Tools teamPlan and lead team through software upgrades of Matlab, Atlassian products, and Git	
Network Engineering Intern, Facebook	Summer 2016
<ul style="list-style-type: none">Created scripts for automation of network switch testing with Tcl and Ixia hardware APIDeveloped driver for IC chip with C++ to improve Wedge100 switch function and reliabilityAssisted with switch setup and procedure standards to maximize the team's productivity	
Systems Engineering Intern, GE Aviation	Summer 2015
<ul style="list-style-type: none">Produced MATLAB software tools to automate test validation for LEAP and Passport 20 engines	

EDUCATION

M.S. in Computer Science, University of Southern California	Summer 2021
<ul style="list-style-type: none">Relevant Courses: Web Technologies, Database Systems, Analysis of Algorithms	
B.S. in Electrical Engineering, Purdue University	May 2017
<ul style="list-style-type: none">Relevant Courses: Software Engineering Tools, Algorithms & Data Structures, OO Programming	
Study Abroad, Universidad Carlos III de Madrid	Spring 2016
<ul style="list-style-type: none">Completed engineering courses and projects in a culturally diverse environment	

DESIGN PROJECTS

COCOMO II Web App, USC Center for Systems and Software	Summer 2020
<ul style="list-style-type: none">Developed GitLab pipeline to run Jest test suite, collect code coverage, and deploy to productionUpgraded pipeline to deploy app changes to staging environments and evaluate web performance	
React News Website	Spring 2020
<ul style="list-style-type: none">React front-end allows users to browse, share, and bookmark news articles from their browserNode.js + Express back-end provides news articles from the NY Times and The Guardian APIs	
Flask News Website	Spring 2020
<ul style="list-style-type: none">Plain JavaScript front-end provides user search, word-cloud, and slideshow of top articlesPython + Flask back-end provides news articles from Fox News & CNN via Google News API	
UNIX Socket Programming	Spring 2019
<ul style="list-style-type: none">Five C/C++ programs in distributed system for storing, querying, & calculating network delays	
USB Audio Headphone Amplifier	Spring 2017
<ul style="list-style-type: none">Programmed Tiva Microcontroller in C to display volume meter and equalizerInterfaced with touchscreen to display GUI, and digital potentiometers via SPI	
Computer Security Python Projects	Spring 2017
<ul style="list-style-type: none">Used Python to write encryption algorithms such as AES and RSAWrote firewall filters and buffer overflow attack programs	
Game Programming	Fall 2016
<ul style="list-style-type: none">Created Super Mario-like game for Windows machines in JavaCreated 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, Purdue ECE Student Society	2015-2017
Eagle Scout, Boy Scouts of America	January 2012