

Education

University of Michigan, College of Engineering
B.S.E. in Computer Science Engineering, Math Minor
GPA: 3.76/4.00

April 2017

Programming Languages

Highly Proficient: Swift, C++, Python, C#, C, JavaScript
Experience with: SQL, Swift, Bash, Make, Java, MATLAB

Relevant Projects

<https://github.com/buechechristian>

Major Design Experience

Bubble (iOS Mobile App)

- › Developing an augmented reality app that connects students and recruiters at career fairs
- › Programming View Controllers in Swift and enabling AR through JavaScript calls to Wikitude's API
- › Designed, coded, and deployed backend MySQL database and API to query and manipulate the database

MHacks 8

NeuroCritic (Web App)

- › Adapted an LSTM network to predict art reviews character-by-character through machine learning
- › Scraped and cleaned the HTML from art blogs for training dataset
- › Seeded neural net with image description using Microsoft's Cognitive Services Computer Vision API

The Boeing Company

Active Directory Admin Tool (Web App)

- › Developed new, user-centric front-end for deployment of web application to entirety of the enterprise, with an estimated minimum cost saving of \$500,000 over the first 5 years

Application Database Services (Web App)

- › Designed, coded, and implemented a new customer-facing website for ADS department
- › Consolidated multiple content sources into a single entity to support 120 DBA's with a \$23M operating cost

Student Space Systems Fabrication Laboratory | University of Michigan

Miniature Tether Electrodynamics Experiment (MiTEE)

- › Programmed mission critical embedded software in C on T.I.'s MSP430FR5969 microcontroller
- › Designed and implemented SPI communication protocol between main and subsidiary processors

The Stryker Corporation

Firmware Upgrade Tool

- › Designed using MVVM pattern in C# WPF and consulted with end-users for needed features
- › Spearheaded full-stack development to service the branch's most profitable product, the SPI3

Work Experience

The Boeing Company - Software Development Intern

Summer 2016

Student Space Systems Fabrication Laboratory - Software Developer

Winter 2015 – Fall 2015

Stryker Corporation - R&D Software Engineering Intern

Summer 2015

Upper-level Coursework

Operating Systems (EECS 482)

Fall 2016

Mobile App Development for Entrepreneurs (EECS 441)

Fall 2016

Computer Security (EECS 388)

Winter 2015

Web Databases (EECS 485)

Fall 2015