

Education

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

Expected 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 – Fall 2016

Bubble (iOS Mobile App)

- › Worked in a team of 4 to develop an augmented reality app that connects students and recruiters at career fairs
- › Programmed View Controllers in Swift and enabled AR through JavaScript calls to Wikitude's API
- › Designed, coded, and deployed backend MySQL database and API to query and manipulate the database
- › Performed product demos for MVPs and team presentations on customer personas and user testing results

MHacks 8 – October 7-9 2016

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
- › Collaborated as a team of 3 using Slack for communication and Git for source control

The Boeing Company – Summer 2016

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
- › Practiced test-driven development and performed regression testing for each completed feature

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 – Winter 2015 - Fall 2016

Miniature Tether Electrodynamics Experiment (MiTEE)

- › Programmed mission critical embedded software in C on T.I.'s MSP430 microcontroller
- › Designed and implemented SPI communication protocol between main and subsidiary processors

The Stryker Corporation – Summer 2015

Firmware Upgrade Tool

- › Full-stack developed a .NET application to service the branch's most profitable product, the SPI3

Volunteer Experience

Detroit Partnership - Tutor, Volunteer Coordinator and Tutor

Fall 2013, Fall 2016

- › Coordinated and tutored at a STEM program for 7th/8th graders at Noble Middle School

Faces of Ann Arbor – Creator - <https://www.facebook.com/facesofannarbor/>

Winter 2015

- › Created a blog to share the stories of people I see on the streets

Upper-level Coursework

Operating Systems, Information Retrieval, Mobile App Development for Entrepreneurs

Fall 2016 – Winter 2017

Computer Security, Web Databases

Fall 2015 – Winter 2016