

## 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 – Fall 2016

Bubble (iOS Mobile App)

- Developed an augmented reality app that connects students and recruiters at career fairs
- Programmed 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 – 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

### 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

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 MSP430FR5969 microcontroller
- Designed and implemented SPI communication protocol between main and subsidiary processors

### The Stryker Corporation – Summer 2015

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

## Volunteer Experience

**Detroit Partnership** - Tutor, Volunteer Coordinator and Tutor

Fall 2013, Fall 2016

- Coordinated and tutored at a STEM program for 7<sup>th</sup>/8<sup>th</sup> 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** (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

