Christian Bueche

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Education

University of Michigan, College of Engineering
B.S.E. in Computer Science Engineering, Math Minor — April 2017
GPA: 3.76/4.00

Programming Languages

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

Relevant Projects

https://github.com/buechechristian

MHacks8
NeuroCritic
- 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 (ADAT)
- 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
- Added features including Amazon-like single search bar, filtering, result table modifications to production directory system, downloadable search results

Application Database Services (ADS) website
- 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

University of Michigan Coursework
Introduction to Computer Security (EECS 388)
- Conducted application attacks (buffer overflows), cryptographic attacks (length-extension, hash-collision, Bleichenbacher's), web attacks (XSS, SQL injection, CSRF)
- Penetration tested a closed system

Web Databases (EECS 485)
- Full-stack developed a social networking, picture-sharing web application, and a search engine utilizing tf-idf and PageRank statistics

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 SwitchPoint Infinity 3

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

Distinctions

- University Honors, 2 semesters
- Dean's List, all semesters
- University of Michigan Regents Merit Scholarship
- University of Michigan Alpine Ski Team