

# Zachary R. Holbrook

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## CONTACT

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## EDUCATION

### The Ohio State University

August 2017-May 2021

GPA: 3.50

Major: Computer Science  
and Engineering

### COURSEWORK

Software Development 1  
Software Development 2  
Data Structures and Algorithms  
Intro to Artificial Intelligence  
Intro to Database Systems  
Intro to Data Mining  
Web Applications  
Principles of Languages  
Data Mgmt in the Cloud  
Artificial Intelligence  
Capstone  
Code Breaking

### INVOLVEMENT

Ohio State Student Athlete  
Ohio State Artificial Intelligence  
Seminar  
Alpha Kappa Psi Professional  
Fraternity

## SKILLS

### PROGRAMMING

Proficient:

Python • Java

Familiar:

TypeScript • JavaScript • React  
• Angular • HTML • CSS • Node  
JS • Django • C# • .NET • SQL

### OTHER

Git • Azure • AWS •  
Firebase • Docker • JIRA •  
Docker • Agile

## EXPERIENCE

### Capital One | SOFTWARE ENGINEERING INTERN

June 2020 – August 2020

- Engaged in an Agile environment utilizing JIRA to define and populate stories to delineate the requirements of the project
- Produced Angular web application using D3JS and DataTables.net to feature 17 Key Resiliency populated by an aggregated data pull from AWS Lambda which determine the risk and reliability of all applications across Capital One
- Queried Snowflake database using SQL, Python, and AWS Lambda to source data using CloudWatch and send to S3 bucket
- Configured and deployed AWS infrastructure for 9 Lambda's and an S3 bucket leveraging Terraform and Docker

### General Electric | DIGITAL TECHNOLOGY INTERN

May 2019 – August 2019

- Collaborated in an Agile environment to analyze team's requirements and create user stories to shape vision of the project
- Produced Angular7/ExpressJS web application with Bootstrap4 and New Relic Analytics to display important server metrics with authentication service and 100% test coverage utilizing Karma/Jasmine and Mocha/Chai packages
- Aided development on Angular8/Golang multitenant application facing 650,000 clients across various companies
- Constructed and documented CI/CD pipeline through GitLab repository and into an AWS EC2 instance using Docker

### Tenet3 LLC | CYBER SECURITY INTERN

May 2018 – August 2018

- Worked in an Agile environment utilizing GitFlow methodology to help build networking web application
- Transitioned data using RESTful API to Jupyter Notebook and designed Network reliability graph using NetworkX library
- Provided analyses on a systems security by identifying potential vulnerabilities for DOD and private sector companies

## PROJECTS

### Cryptocurrency Sentiment Web App

- Created web app that pulls cryptocurrency data on 100+ types and provides clear charts with relevant sentiment and statistical evaluations while maintaining a desktop and mobile friendly design
- Developed with Blazor server utilizing C# / .NET 5.0 framework, Azure functions, Azure Cloud Database, Flask API, deployed with Docker through Azure app service at <https://cryptoment.azurewebsites.net/>

### IBM Watson Recipe and Playlist Generator

- Designed and built a web app that uses a custom IBM Discovery model and the Spotify API to provide users recipes and music recommendations based on current ingredients
- Built using Django, Python, Vanilla JavaScript and HTML with Bootstrap styling. IBM Discovery modeled used 1000+ scraped recipes to query from

### 1v1 Blackjack Online Game

- Constructed multitenant web app where users can create a secure account, play other users 1 on 1 in blackjack based on wagers, and track their previous game statistics in a leaderboard
- Utilized Ruby on Rails MVC, PostgreSQL, HTML, CSS, JavaScript, and deployed with Heroku at <https://webappscseproject.herokuapp.com/>