John Holler

Product Engineer

Personal Info

email

jholler423@gmail.com

telephone

419-787-3325

website

johnholler.com

github

github.com/johnholl

Skills

Frontend

React · React Native · Redux · Functional Components · HTML · CSS

Backend

Express · Websockets · Django · Flask · MongoDB · MySQL · Firebase

Machine Learning

TensorFlow · Neural Networks · Reinforcement Learning · Game Theory · Computer Vision

Programming Languages

Javascript > Python > Java > C > C++

Primary System

Linux

Other Skills

Teaching · Public Speaking · Reading Technical Papers · Quickly Learning New Tech

PhD mathematician, freelance software developer, and lifelong learner excited to tackle challenging, ambiguous problems. I have worked on a diverse set of problems, including abstract mathematics, artificial intelligence, and full stack application development.

Experience

Software Developer

Freelance

2019-present

- Created a sales management application using React Native for the *Appropriate Technology Collaborative*
- Created a Partner Impact Map web pllicationg using React and Firebase for *Ola Filter*
- Founded beunstuck.net, an all in one tool for offering, appointments online using a suite of tools with Google API and ecommerce (Stripe) integrations
- Learned numerous modern frameworks and libraries
- Gained practical experience interacting with clients and bring products from inception to production

* See Portfolio for more details *

Math and Computer Science Teacher

Greenhills School

2019-present

- Taught Precalculus, AP Calculus, and AP Computer Science
- Developed unique projects in AP Computer Science requiring coding the infrastructure for integrating all student projects
- Implemented online self-hosted homework system using WebWork by MAA
- Mentored students in numerous independent programming projects as well as the Robotics team

Graduate Student Research / Research Intern

DiDi Labs

2017-2019

- Implemented classical Reinforcement Learning algorithms to optimize taxi assignment
- Designed and wrote a simulator to test cutting edge neural network approaches
- Processed and visualized large, noisy datasets

Education

PhD, Pure Mathematics

University of Michigan

2014-2019

- Published papers in Artificial Intelligence, Game Theory, and Algebraic Topology
- Coursework in Computer Security, Reinforcement Learning, Linear Optimization, Probability
- Gained practical experience writing research code in Python

Bachelors of Science, Honors Mathematics

University of Michigan

2010-2014

- Research projects in Particle Physis, Mathematical Logic and Recursion, Cryptography
- Graduated Cum Laude