# ETHAN MCCARTHY

Ø ethmcc.github.io

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# **EMPLOYMENT**

### Software Developer

iii 2021 - present

Two Fish Creative

West Palm Beach, Florida

Built full-stack enterprise web applications for clients managing hundreds of millions of dollars in accounts. Worked intensely in an Agile development environment as team lead on a green-tech software project. Mentored and led other developers. Interacted directly with clients to understand needs and deliver on business goals.



#### Software Engineer

ര് Skillion Inc.

**iii** 2020 - 2021

Bethlehem, Pennsylvania

Developed full-stack Android applications and web apps for an e-bike platform. Led development of "Tours" project.

Java	Android React AWS IoT	Google Cloud Platform
Google Maps Platform JUnit testing		Machine Learning
OpenCV C++ Scrum		

### Visiting Assistant Professor

**University of Florida** 

**ii** 2018 - 2020

Gainesville, Florida

Published original research in computer science and symbolic logic. Led research seminars and conferences. Converted courses to online-delivery. Developed video sequences, programmed interactive online teaching tools, and contributed to digital textbooks.

## **Graduate Teaching Assistant**

University of Wisconsin-Madison **1** 2012 - 2018 Madison, Wisconsin

Led recitations in undergraduate mathematics courses. Developed curriculum content. Led and trained other teaching assistants.

# Undergraduate Teaching Assistant

Michigan State University

**1** 2010-2012

East Lansing, Michigan

Led the recitation sections for a terminal undergraduate math course. Assisted in tutoring center.

# PERSONAL PROJECTS

I enjoy working on side-projects. You can find write-ups on my programming blog: https://ethmcc.github.io/projects/. These include:

- A native Android Application written in Java
- A physical pomodoro timer built on the Arduino platform with C++
- A progressive web application built with React for teaching students about Turing machines
- A Python library for efficiently solving combinatorial problems

### **EDUCATION**

Ph.D. Mathematics

**UW-Madison** 

**1** 2018

Madison, Wisconsin

Theory of computation, computer science, computability and complexity, algorithmic information theory and randomness.

M.A. Mathematics

**UW-Madison** 

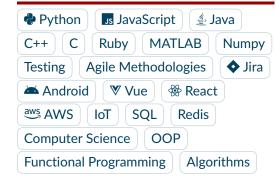
**2014** 

Madison, Wisconsin

## ☆ OTHER EXPERIENCE

• Art of Problem Solving. Teaching coding to talented high school students. Intro to Programming with Python, Intermediate Programming with Python.

### </> **IDENTIFY**



### SELECTED PUBLICATIONS

- Pointwise complexity of the derivative of a computable function. Arch. Math. Log. (2021). DOI: f7ms
- Cototal enumeration degrees and their applications to effective mathematics. Proc. Am. Math. Soc. 146 (2018). DOI: f7mt

## T SELECTED AWARDS

- Graduate Research Fellowship, NSF, 2014
- Herbert T. Graham Scholar, 2011 & 2012
- Math in Moscow Scholarship, AMS, 2012
- Herzog Mathematical Competition, 1st Prize, 2011

#### **竹OTHER INTERESTS**

**\$ Sailing:** Instructor at UW Hoofers student sailing program.