

Samuel Tomack

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EDUCATION

University of Pittsburgh

BS in Mathematics
Minor in Computer Science
Minor in Chemistry
Expected Grad. April 2023

SKILLS

Mathematics

Graph Theory, Combinatorics,
Number Theory, Optimization,
Linear Algebra, Logic

Computer Science

Object Oriented Programming,
Algorithmic Optimization and
Efficiency, Functional
Programming, Computer
Organization, RESTful APIs

Soft Skills

Teamwork, Open-Mindedness,
Patience, Research

PROGRAMMING

Languages

Java, Python, JavaScript, DLX,
HTML, CSS, Haskell, SQL

Frameworks and Libraries

React, Express, MongoDB, AWS
Lambda

AWARDS

First place, University of Pittsburgh
MathFest 2022

Recipient of University of
Pittsburgh 2022 Painter Fellowship
for undergraduate research

EXPERIENCE

Trav Media

Software Engineering Intern

Jan 2023 - Current

Pittsburgh, PA

- Improved accuracy of streaming speech to text transcription with Google's Speech API
- Styled mobile UI according to Figma mockups

University of Pittsburgh

Student Researcher

May 2022 – Aug 2022

Pittsburgh, PA

- Extended a classic theorem of discrete mathematics to a novel context
- Programmed graphing models in Python for rough confirmation of hypotheses throughout the project
- Typeset technical papers detailing results of the project

Mathease Tutoring

Math Tutor

April 2022 – Sep 2022

Pittsburgh, PA

- Worked with middle and high school students to improve grades and test scores in mathematics
- Helped organize and streamline a company-wide database of files and textbooks

PROJECTS

Music Recommendation Engine

A web application that generates a word cloud of musicians from a user's query. The front end is built with HTML, CSS, and JavaScript with D3's graphing API. The back end is built with Express, MongoDB, and Last.fm's API.

BikeSafePGH

A web application to find safe or protected bike routes between locations in Pittsburgh, PA. The front end is built with HTML, CSS, and JavaScript. The back end is built with Express and open-source APIs (Leaflet, Leaflet routing machine, LocationIQ, and Graphhopper).

Graph Isomorphism Detector

An educational tool to determine isomorphism between user-defined graphs. The goal is to make the idea of isomorphisms between graphs intuitive by animating the smooth deformation of one to match the other. Built in JavaScript, HTML, and CSS.