Brandon Faunce

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Dedicated, creative, and passionate Software Engineer with multiple years of internship experience. Searching for a co-op between May-August 2024 to broaden my tech skill set, devote myself to a project, and make meaningful contributions to the world of software. Strong preference to work on-site.

Education

Rochester Institute of Technology

Expected May 2026 | GPA 3.88

B.S. Software Engineering | Music Performance Minor | Science of Film, Photography, and Imaging Immersion

Technical Skills

Languages: Python | Java | C# | C / C++ | HTML | Javascript | React | Angular | SQL
Libraries: TensorFlow | ZeroMQ | Pandas | Flask | FastAPI | Processing3 | jQuery | jqWidgets | Plotly
Tools: Google Cloud | Firebase | DigitalOcean | Git | Unix | Windows | Scrum / Agile

Experience

Intern / Part Time Quantitative Developer

Ellington Management Group | May 2022 - August 2023

Cut down the computation time of several essential, time-intensive calculation tasks company-wide by over 400% through the design, prototyping, implementation, and maintenance of the Distributed Task Service, an internal server-to-client networking system. The service consists of a Python server which uses the ZeroMQ library to handle task communication and a SQL server to hold a queue and logs of tasks. An additional Flask server hosts pages which allow user interaction and display metrics such as server status and a task queue / task descriptions.

Summer Camp Counselor (Code Sensei)

Code Ninjas | June - August 2021

Inspired and guided young kids ages 6-15 by planning and leading several educational camps in tech disciplines. Camps focused on disciplines including game development with Scratch and MakeCode, 3D modeling and printing, UAV drone scripting, web development with HTML, CSS and JS, and simple robotics systems. Coordinated with the camp manager, counselors, campers and parents to create the most fun and educational camp environment possible.

Projects

IDEA Card

Group Software Product - Google Developer Solution Challenge | January - February 2024

A full-stack application built to assist in the visibility of disabled job applicants who suffer discrimination in the hiring process. Prioritized a thorough and well-researched application, and conducted usability and contextual interviews to ensure the highest quality product. The website is built in Angular with TypeScript, and backed by a Python server which interfaces with Firebase for its NoSQL database and User Authentication. Everything is hosted in the Cloud using a combination of Firebase and Google Cloud Kubernetes Engine.

TrainedTerrain

Personal Project with Daniel Gramowski | May 2023 - Present

An innovative solution that uses machine learning to convert topographical maps into 3D models. Combines data from the National Geologic Map Database and the Google Earth Engine to train a TensorFlow Keras model, publicly available through an API. Data processing is performed on the backend using libraries such as numpy, pandas, and trimesh, and the frontend is built using HTML and p5.js.

Total Difference Labeling GUI

Tool for Published Math Research Paper | February - May 2021

A GUI created to draw graphs and compute difficult graph constants necessary for our research project, “Total Difference Chromatic Numbers of Regular Infinite Graphs”, which has been published in Involve’s Journal of Mathematics (10.2140/involve.2023.16.765). The application runs on Java using Processing p3, and utilizes many concepts from Graph Theory to produce accurate results.