

Objective: Computer science undergraduate with experience in algorithm optimization projects and web development. Currently building websites for University of Michigan Radiology Lab and Canopy Child Advocacy Center in Cleveland, Ohio.

Education

University of Michigan, Ann Arbor, MI

December 2019

Bachelor of Science in Computer Science

GPA: 3.36/4.00

Current Coursework: Foundations of Computer Science, Web Databases and Information Systems

Relevant Coursework: Programming and Introductory Data Structures, Data Structures and Algorithms, Introduction to Computer Organization, Discrete Mathematics, Introduction to Statistics

Project Experience

Instagram Clone Using Server-side and Client-side Dynamic Pages

- Built an Instagram clone using a React driven user interface which makes AJAX calls to our REST API.
- Created a website backend with Flask making use of sessions and SQL; deployed on Amazon Web Services (AWS)

Scalable Search Engine

- Built a search engine with information retrieval method which relies on TF-IDF and PageRank scores.
- Produced a Map Reduce pipeline written in python3 which leverages Hadoop's command line streaming interface to generate an inverted index.
- Developed a React driven interface built on the Flask framework and deployed on AWS.

Map Reduce Server

- Coded a multi-process, multi-thread MapReduce server which could execute any user-submitted jobs with an arbitrary number of workers.
- Established communications between the workers and the master using both UDP and TCP for heartbeat messages and worker orders respectively.

MFly, University of Michigan Autonomous Aircraft Design Team (AUVSI)

- Configured the advanced failsafe procedure for an autonomous plane to comply with AUVSI rules for competition.
- Currently integrating a decoder to read in Pixhawk heartbeat from the plane to the ground station and convert the data packet into readable data.

Canopy Child Advocacy Center Website (<http://www.canopycac.org/>)

- Creating website for Cleveland's Child Advocacy Center (CAC) whose goal is to reduce potential trauma to children and families impacted by child abuse.
- Built with python and the flask framework to facilitate an editable site for CAC admin. Site also built to provide all necessary services for potential families and donors as well as be accessible for children.

Web Scheduler (<https://webscheduler-eeecs183.herokuapp.com/>)

- Created a website that allows students to intuitively find upcoming courses at UofM using the university's API as well as web scraped data from other websites using BeautifulSoup4.

Experience

C. Galbán Labs, Michigan Medicine

Web Developer and Research Assistant (<http://www.umich.edu/~cgalbanlab/>)

June 2018 – current

- Created official website for the C.Galbán lab within the Center for Molecular Imaging at University of Michigan using a static website generator written in python.
- Investigating feasibility for using micro CT analysis coupled with CT Analysis and airway segmentation simulation software for disease phenotyping in patients' lungs.

Self Employed

Family Assistant, Event Organizer, and Tutor

2011-2017

- Managed a summer home for an out of state family over 6 years with increasing responsibility and management. This was a unique opportunity that grew from a short summer project into a year-round position coordinating multiple employees and services.
- Trusted with the purchase and sale of multiple watercraft, watercraft upkeep and storage, landscaping staff logistics and payroll, as well as transportation, scheduling, temporary staff hiring, and event planning.

Skills

Technical: C++, C, Python, HTML, LaTeX, Flask Framework, Javascript, German

Hobbies: Actor, Musician, PADI Certified Open Diver, Surfer, Backpacker, and Fitness Enthusiast
