

EDUCATION

Swarthmore, PA **Swarthmore College** **Jun 2024**

- Bachelor of Arts in Computer Science & Philosophy, GPA: 4.0.

EXPERIENCE

Associate Software Engineer **Kapwing** **Jan 2021 – Present**

- Reduced audio fidelity support tickets by 50% by optimizing FFMPEG pipeline to minimize audio re-encoding.
- Unblocked development of advanced audio effects by rerouting HTML5 videos through Web Audio API. Used gain nodes to allow users to boost volume past 100%.
- Implemented box selection in Kapwing Studio by applying collision detection algorithms on HTML elements.
- Improved asset upload/download UX by adding progress bar and migrating polling manager from Redux to indexedDB, increasing consistency across sessions.
- Lead development of Keyframe Editor, a tool that enables users to create complex animations with zoom and pan (like the Ken Burns Effect.)

Data Visualization Intern **FinePrint Data** **Dec 2020 – Jan 2021**

- Built client-facing dashboard to visualize stock holdings of US representatives. Eventually served as primary pitch deck to secure company's first contract.
- Developed AWS architecture by setting up and integrating RDS, EC2, Nginx and ElastiCache Redis.
- Mentored incoming web development intern and created frontend documentation practices using JSDoc.

Data Science Intern **Uliza** **Oct 2020 – Dec 2020**

- Developed proprietary spellcheck software for Twi, a Ghanaian language with 8 million speakers.
- Expedited data extraction by creating Python CLI to rapidly build corpuses for non-English languages.
- Automated QA workflow by using NLP to compare semantic similarity of translations to original.

PROJECTS

Posterboard

- Second-Place Winner overall (out of 92 projects) at HackUlowa 2021.
- Posterboard is a platform for creating and sharing quote posters. Using Azure Text Analysis, Unsplash and Google Custom Search, Posterboard automates the process of poster-creation.

Box-it

- Placed Top 20 at Ryerson University Hacks 2021.
- Box-it helps self-storage customers estimate their storage needs. It uses three.js and a bin-packing algorithms to visualize what furniture looks like within a self-storage unit.

GPSled

- Won "Most Sporty Hack" at 2020 Winter Hacklympics hosted by MLH.
- GPSled is a web application that returns optimal sledding routes given user's location. Built using ReactJS, Flask, Google Maps API, Open Street Map API and hosted on Heroku.

Google Development Student Clubs (DSC)

- Taught 30 CS majors web development by hosting weekly workshops covering HTML, CSS, JavaScript.
- Published web dev and scraping tutorials in Medium journals *JS in Plain English* & *Python in Plain English*.

Languages and Technologies

- **Languages:** JavaScript, TypeScript, Python, HTML, CSS, SQL, C++
- **Frameworks and Libraries:** React, Redux, Express.js, Scrapy, Flask, Pandas
- **Tools:** Git, Linux, AWS (RDS, ElastiCache Redis, EC2, S3), Heroku, Cypress, Amplitude