# Arpan Laha

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## Profiles

GitHub: [github.com/arpanlaha](https://github.com/arpanlaha)
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Website: [arpanlaha.com](https://arpanlaha.com)

## Education

### University of Illinois at Urbana-Champaign

- › B.S. in Computer Science (May '21)
- › GPA: 3.97 | Technical GPA: 3.97
- › Minor in Mathematics
- › Chancellor's Scholar

## Skills

### Languages

TypeScript/JavaScript, C, C++, Rust, Python, Java, R, SQL, C#, Racket

### Frontend

React, Next, Gatsby, WebGL, WebAssembly, Redux, Electron

### Backend

Node.js, Express, Flask, Django, PostgreSQL, MongoDB, Neo4j

### Cloud

Vercel/Zeit, Azure App Service, Azure Functions, AWS Lambda

### Miscellaneous

scikit-learn, scikit-image, OpenCV, ESLint, Git, GeoDa, QGIS

## Coursework

Systems Programming, Algorithms & Models of Computation, Programming Languages and Compilers, Database Systems, Applied Machine Learning, Data Structures, Web Programming, Numerical Methods, Audio Processing, Applied Statistics, Virtual Reality

## Work Experience

### Microsoft | Program Manager Intern (ongoing)

- › Investigating opportunities for deploying Flask and Django on Azure Functions and adjacent serverless solutions offered by Azure

### Microsoft | Software Engineer Intern (Summer 2019)

- › Designed tool to verify Azure SDK guideline adherence during development
- › Built ESLint plugin in TypeScript, enforcing rules with a focus on modularity
- › Delivered multiple releases and iterated on plugin using team's feedback

### UChicago Computation Institute | Intern (Summer 2018)

- › Dynamically modelled Chicago's air quality and its determinants
- › Processed and analyzed data sources with Python, R, GeoDa, and QGIS

### Fermilab | Intern (Summer 2017)

- › Designed and implemented pattern recognition algorithm in C++ for Mu2e's event classifier, reducing runtime threefold and preserving accuracy

## Extracurricular Experience

### Hack4Impact | Co-Director (Spring 2020-Present)

### Hack4Impact | Product Manager (2019 – Spring 2020)

- › Designed and delivered applications, leading team to ensure development best enhanced clients' and user's outcomes in various social good sectors
- › **Spring 2020 – Kids Save Ocean:** a platform for kids to design sustainability solutions while serving as a community to gain inspiration from others
- › **Fall 2019 – UIC:** a cross-platform desktop app helping spinal surgery lab technicians visualize patient progress from post-op and recovery x-rays
- › **Spring 2019 – Kiva:** a web app streamlining Kiva's partner accreditation, consolidating multi-platform communication into a single portal

### Hack4Impact | Software Developer (Fall 2018)

- › Developed web app for Child's Play Charity to match hospitalized children with video games to use as therapy for various ailments
- › Utilized Flask and PostgreSQL to store/access information about supported video games and fetch information about games using Giant Bomb's API

## Side Projects

### Harmonizer (web application) | Harmonizes submitted melodic audio files and synthesizes harmonic audio to accompany the melody

### Spectrum (website) | Generates random art using WebAssembly with Rust and WebGL, rendering three ways to show strengths of each approach