

# PARTH SAXENA

2237 Kamp Court, Pleasanton, CA 94588

☎ (925) 998-2624 ✉ [parths3@illinois.edu](mailto:parths3@illinois.edu) [linkedin.com/in/parthsaxena620](https://www.linkedin.com/in/parthsaxena620) [github.com/parthsaxena](https://github.com/parthsaxena)

## Education

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### University of Illinois Urbana-Champaign

Aug. 2020 – May 2024

*Bachelor of Science in Computer Science*

4.0 GPA

*Master of Science in Computer Science*

## Relevant Coursework

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- Artificial Intelligence
- Algorithms & Computation Models
- Data Structures
- Natural Language Processing
- Data Mining
- Compilers
- Applied Machine Learning
- Systems Programming
- Software Design

## Experience

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### Forward Data Lab | *Researcher*

May 2022 - August 2022

- Built a **search engine to instantly view research papers** relating to **abstract ideas or concepts**, as well as a **hierarchical view of related parent topics and subtopics**.
- Developed a **web-based IDE** to execute & **test out database Python scripts in a sandboxed environment** with built-in versioning features. Enabled Python procedures to be **routinely executed on production database** to **identify unsanitized data, process data imports, build metrics**, and perform other data management tasks.
- Developed a **document parser** to perform **named entity recognition (NER)** to uniquely identify **Concepts, Works, Venues, Institutions, and Authors** across thousands of research journals.

### Robin.io | *Software Engineer Intern*

May 2021 - July 2021

- Added **backup support** for data-intensive applications deployed on **Kubernetes**. Used **S3 protocol** for object transmission to **IBM Cloud Object Store buckets**.
- Created a **realtime analytics dashboard** that **integrated data from Prometheus** to **monitor volume statistics** of individual nodes on a cluster over a 10 second interval. Provided **read & write speeds, iOPS per second, total bytes read/written, queue depth statistics**, and more.

### MTRbot | *Automated crypto trading system*

September 2018 - August 2019

- Developed an **automated trading system that used various technical indicators to analyze market patterns** as well as a **bot to exploit arbitrage opportunities** across leading cryptocurrency exchanges (Binance, Bittrex, Bitfinex, Kucoin, and more).
- Raised over ~\$23k from friends & family willing to invest in MTRfund.

### VoiceEDx | *Machine-learning diagnostic platform*

September 2017 - August 2019

- Worked with a team of 3 engineers to develop a **machine-learning diagnostic platform** to discern patterns in **patients' voices** that are indicative of several neurological disorders, including **Parkinson's, ALS, TBI, and more**. Achieved an **average sensitivity of 68% across all diseases**.
- Developed a **scalable backend infrastructure** to allow for seamless expansion to more diseases, **paired with an iOS app, Android app, web app, and toll-free call-in system** to maximize accessibility.

### E-chase | *DoorDash for anything and everything*

November 2016 - May 2017

- Developed an **end-to-end P2P delivery platform connecting stores to local consumers**. E-chase offered consumer & driver apps on iOS, Android, and the Web.
- **Automated database-generation through a web-crawler that scraped inventory information** from leading online retailers like BestBuy, Walmart, Target, and more, in addition to pulling data from popular commerce API's.

## Technical Skills

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Languages/Platforms: Python, Java, C/C++, Node.js, Swift, HTML/CSS, AWS, SQL

## Awards

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- Intel ISEF 2018 4th-place (IC)
- Intel ISEF 2017 4th-place (IC)
- Intel Excellence in CS
- SAMVID Excellence in AI
- Eagle Scout
- National Merit Scholarship Finalist

## Hobbies

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### Boy Scouts of America | *Eagle Scout*

2012 - 2020

- Engaged in a variety of service projects to help my local community.

### YouTube Channel | *TheSwiftUniverse*

2014 - 2017

- Managed a YouTube channel to teach mobile and server development. Amassed 100,000+ views & 1,000+ subscribers.