

# Disha Aravind

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## Education

MS in Computer Science, **Georgia Institute of Technology** (GPA 4.0/4.0) Aug 2022 – May 2024

- Research Assistant at the [Technologies and International Development Lab](#) under [Prof. Michael L. Best](#)
- Teaching Assistant for CS 6550: **Continuous Algorithms** - Collaborating with [Prof. Santosh Vempala](#) on textbook [Techniques in Optimization and Sampling](#)

B. Tech in Computer Science, **PES University** (CGPA 9.09/10) Aug 2016 – May 2020

- Specialization in **Algorithms and Computing Models**

Relevant Coursework: *Advanced Algorithms, Natural Language Processing, Machine Learning, Cloud Computing, Software Engineering, Object Oriented Programming, Artificial Intelligence, Design & Analysis of Algorithms, and Performance Engineering*

## Skills

- Programming languages: C++, C, Java, Python, OCaml, C#, JavaScript, TypeScript, React, Node.js
- Databases: MySQL, PostgreSQL, Kusto Query Language, MongoDB
- Web Development: REST API, Flask, PHP, HTML, CSS, jQuery
- Cloud Computing Technologies: Docker, Amazon Web Services (AWS), Azure

## Projects

Community-Based COVID-19 Social Media Monitoring and Response Aug 2022 – Present

- Collaborating with [Project PEACH](#) to understand *reasons for COVID-testing hesitance* and to *encourage testing in Atlanta*
- Created a Python **Web App** to extract >200K relevant posts from Twitter, Facebook, and Instagram
- Implemented models like **LDA**, **HDP** and **BERTopic** to understand and cluster data. Made a custom psychological model with **BERT**, **Linguistic Inquiry** methods, and a **Chat-GPT** layer to create a live dashboard
- Developed an application to **auto-dispatch personalized text messages** to 200 volunteers, nudging them to undergo testing

## Experience

Software Development Engineer, **Microsoft** Jul 2020 – Aug 2022

### Custom Fields Autofill

2022

- Created a feature to allow users to *autofill self-curated data* in forms. Conducted **A/B testing** and mitigated **sample ratio mismatch** errors to ship the feature
- Increased *Click through Ratio* by 25%, Improved *user adoption* by 18.8K users, *User engagement* by 12.3K users and **116% increment in coverage**

### Web-Assist Fields

2022

- Developed *Date of Birth* Field - Auto-filled by users in 28% of online forms
- Added *Data-List* component - used in 9% of all web pages.
- Implemented a feature to fill Flight data from Outlook mails in one click through **entity extraction** – used by > 4K monthly users

### Performance and Telemetry

2021

- Decreased autofill *memory footprint* by 24% and worked in **Performance V-team**
- **Refactored** Autofill **Data storage** and **Sync servers** to decrease *sync conflicts* by 94% for 38M active clients

### Customer Experience Enhancers

2020

- Diagnosed and resolved low precision in Autofill from Clipboard suggestions – *increased by 15.5%*
- Solved long-time **Accessibility** bugs impacting over 50k users over 6 stable releases

Software Development Intern, **Microsoft** Jan 2020 – Jul 2020

### Assignment Helper

2020

- Developed a Scalable **Flask server** and **RESTful API** to suggest assignment outlines for > 126K students.
- Experimented with **NLP** models, used **Conditional Random Fields** ML model trained on **Bing data** with 96% accuracy.

### Closed Caption Generator

2019

- Built a live caption generator for all videos in Edge using **Azure Cognitive Services**
- Worked on the internals of **Chromium's** audio buffers and Pepper API to reduce lag in **live captioning** by 87%

## Publication

[Propaganda in Trending Twitter Topics in India – A Metric Driven Approach](#), **IEMIS Springer** 2021

- Created ML models to classify stance of each user in Social Network and analyzed tweeting behavior
- Measured propaganda and bias by looking at bot-like behavior, originality, and sentiment