

Pranay Agrawal

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Science

Aug. 2019 – May 2022

Concentration: Intelligence and Devices

GPA: 4.00/4.00

- **Coursework:** Design and Analysis of Algorithms (top 5%), Computer Organization and Programming, Graduate Deep Learning, Graduate Machine Learning, Natural Language Processing, Computer Vision, AI

RESEARCH AND EXPERIENCE

Georgia Tech CCG: CopyCat | Undergraduate Researcher | ACM-CHI 2021 Publication

Oct. 2019 – Present

- Developing a Computer Vision based ASL recognition framework to improve short-term memory of deaf children
- Demonstrated **HMMs outperform Transformers and LSTMs by 17%** for ASL recognition
- Implemented custom GMM visualization pipeline for feature selection, **improving word accuracy by 23%**
- Developed an adaptive model to progressively tune a base model on a new user, **improving accuracy by 8%**

Amazon | Software Developer Engineer Intern

May 2021 – Aug. 2021

- Integrated Alexa skill manifest information at service runtime to make more informed decisions on which N Alexa skills are relevant to a user's vocal request
- Implemented Datapath Precompute service with Amazon DynamoDB and Google Guava Cache to filter and store manifest data with 3 ms P99 data query latency, 15 min propagation delay, and **reduce financial cost by 70%**

NCR | Software Engineer Intern

May 2020 – Aug. 2020

- Worked on FastLane Mobile Shopper, a comprehensive solution that allows consumers to scan and price items as they shop using their smartphone, using framework Xamarin in .NET mobile development
- Created Apple/Google Pay WinEPTS services with decentralized connector to **increase user retention by 20%**

PROJECTS

VISION | Intel RealSense Depth Camera, OpenCV, Raspberry Pi

Aug. 2019 – Present

- 2nd Place at GT Idea to Prototype Showcase | Semifinalist at 2021 InVenture Prize
- Collaborating with the GT Sonification Lab to build a novel, low-cost wearable device to assist the disabled and visually impaired population with safe and efficient outdoor navigation yielding a **70% reduction in accidents**

Health Port | React Native, TypeScript, Expo, Ignite CLI, Figma, Postman, Git

Oct. 2020

- 1st Place at HackGT7: NSIN Sponsored Challenge | Independent Group Project
- Collaborated with the US Army rangers to create a single interface to aggregate data from a variety of fitness-tracking devices and their respective APIs to improve operational training efficiency

EXTRACURRICULAR

Undergraduate Teaching Assistant | Design and Analysis of Algorithms

Aug. 2020 – Present

- Designed quizzes & lecture problems/solutions twice a week along with course exams & review sessions each unit

Executive Board Member | Startup Exchange | <https://startup.exchange>

Aug. 2019 – Present

- Empowered 200+ students with entrepreneurial knowledge by hosting & leading weekly events with guest speakers

Founding Member and President | Programming Team

Aug. 2018 – Present

- Educated 50+ students with competitive programming algorithms and topics for USACO and ACM-ICPC

AWARDS AND HONORS

MIT Battlecode (AI Programming Competition) | Real-time strategy game

Jan. 2021

- Finalist out of 650 teams in worldwide month long competition with AI, distributed algorithms, and blockchain

Citadel Terminal Live (AI Programming Competition) | Tower defense-style strategy game

Oct. 2020

- 1st Place out of Georgia Tech and UT Austin teams | 13th Place out of 30,000 students in global competition

Competitive Programming Contests

Aug. 2018 – Present

- USACO Gold Division (top 10%) | 8th in 2020 Southeast USA Regional Contest | Round 2 in Google Code Jam

TECHNICAL SKILLS

Languages: Java, Python, C & C++, C#, R, JavaScript, HTML & CSS, Mathematica

Tools/Frameworks: OpenCV, TensorFlow, PyTorch, Git, JUnit, Docker, GCP, Jira, Postman, Linux CLI, Brazil