

# Pratyusha Karnati

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## EDUCATION

### Georgia Institute of Technology

Atlanta, GA

- Bachelors in Computer Science and Engineering, Concentration: Intelligence, Devices | **GPA: 3.65/4.0** Aug 2017 – May 2020
- Masters of Computer Science in Computational Perception and Robotics Aug 2020 – May 2021
- Coursework:** Deep Learning; Networking; Algorithms; Perception & Robotics; Prototyping Intelligent Appliances; Systems & Arch
- Teaching Assistant Positions:** Graduate TA, Perception & Robotics; Undergraduate TA, Grand Challenges Research Project

## EXPERIENCE

### Microsoft

*Program Management Intern on Industry Acceleration Products for Education and Non-Profit* May 2020 – Aug 2020

- Devised functional spec for HigherED scenarios of education accelerator using Dynamics 365 and Power Platform, generated marketing materials, developed partner steering team starter kit for PMs, pioneered design proposal to get the team more dedicated resources

*Program Management Intern on Graphics for Core OS and Intelligent Edge* May 2019 – Aug 2019

- Developed a sizing guidance for Windows Virtual Desktop customers with varying workloads to increase Azure's MAU, drafted a project plan, conducted competitive analysis, leveraged telemetry and ran performance tests, solidified alignment on product vision to drive clarity
- Created "Toastmasters for Interns" to help interns become more effective communicators, managed 12 interns, sessions engaged 180+ interns

*Explore (SWE & PM) Intern on Windows NeXT* May 2018 – Aug 2018

- Implemented a feature to mix and match 3D models by extracting textures from preselected textures, personal styles, or designs from other 3D models, designed MVP in Typescript and final feature product in Ember in Remix3D to increase Monthly Active Users
- Authored high-quality functional product spec, worked with design, marketing, engineering, UR, finance, & product to deliver best solutions

*Spiralyze (Summer Software Development Intern)* Jun 2017 – Aug 2017

- Executed A/B testing techniques to optimize company's website to help generate more traffic and revenue by improving company websites and designing new templates for the web pages

*Technology Services Organization in GT CoC (Student Assistant)* Aug 2017 – May 2018

- Reviewed hardware and software issues to find a solution for students and faculty, addressed concerns through customer service skills

## GT RESEARCH

*Healthcare Robotics Lab (Graduate Student Researcher, Advisor: Charlie Kemp, Zackory Erikson)* Current

- Improving simulated assistive robotics one and two-robot scenarios in Assistive VR Gym using reinforcement and transfer learning

*Contextual Computing Group/UbiComp Lab (Undergraduate Student Researcher, Advisor: Thad Starner)* Jan 2018 – May 2019

- Developed passive haptic wearable technology to help patients improve their sensation and dexterity after injuries
- Spearheaded Head Worn Displays exhibit through the study of virtual reality properties and the social use of HWD

## LEADERSHIP/ORGANIZATIONS

*SpectroSam (Co-Founder, Developer)* Aug 2017 - Present

- Building speech-language technology for children with hearing disabilities through a mobile edutainment game application
- Implementing frontend user interaction, coordinating curriculum development, leading project for app development, business, legal, etc.

*Interdisciplinary Design Commons (Peer Instructor, Volunteer)* Aug 2019 – Present

- Trained on IDC's equipment to create a comfortable, low-pressure learning environment to aid students accomplish their goals safely

*HackGT (Operations & Technology Team, Organizing Committee)* Dec 2017 – July 2019

- Organized event logistics for 1000+ member hackathons, developed tech for HackGT (i.e. curricula, apps, websites, NFC systems, etc.)

*Math Tutoring Business (Founder, Math Tutor)* May 2015 – Aug 2017

- Assisted elementary and middle schoolers in coursework, eliminated summer learning loss, and/or helped them get ahead of the curriculum

## SELECTED PROJECTS

*Mr. Tutor (Freelance Developer and Designer)* Dec 2019 – Present

- Developing a software portal to help a small business tutoring service manage their accounts more effectively and increase returns

*Skin Cancer Analysis (Machine Learning Final Project)* Nov 2019

- Used various supervised learning classification methods to find the best method of skin cancer lesion detection, got an accuracy of ~95%

*Kinesse (Create-X Idea to Prototype)* Feb 2018 - May 2019

- Created a wearable chip that allows runners to listen to music and track their stats without having to bring their phone on runs

*Bobot (MakeMIT 2019 Hackathon: Top 7 Finalists, Devpost: /g\_karnati2004)* March 2019

- Assisted in creating an automated boba machine that acts as a standalone salesman using Computer Vision to attract people towards it

*Ovenbot (PerkinsHacks 2018 Hackathon: Challenge Award Winner)* March 2018

- Designed a voice guided mobile application that allows the visually impaired to interact more efficiently with modern home appliances

More projects, information, and demos available at <https://pratyushakarnati.me>

## SKILLS

**Software:** Java, Python, C#, Pytorch, TensorFlow, HTML, CSS, JavaScript, Swift, C, C++, XML, Ember, TypeScript, Git, Unity, Photoshop, Agile

**Hardware:** Arduino, Raspberry Pi, Printed Circuit Board (EAGLE CAD), 3D Printing, Laser Cutting, Electronics Benchtop