

EDUCATION

Cornell University	<i>Ithaca, NY</i>	Aug 2022 – May 2024 (ongoing)
<ul style="list-style-type: none">• Master of Science in Computer Science (Thesis Track) GPA: 4.0 / 4.0, Minor in Cognitive Science• Graduate courses: Computational Sustainability, Advanced Topics in ML, Advanced Programming Languages		
Indian Institute of Technology Bombay	<i>Mumbai, India</i>	Aug 2017 – May 2021
<ul style="list-style-type: none">• Bachelor of Technology in Computer Science & Engineering with Honors, Minor in Artificial Intelligence & Data Science• GPA: 9.68 / 10, Honors GPA: 10 / 10, Minor GPA: 9.4 / 10		

WORK EXPERIENCE

Software Engineer, Samsung Electronics	<i>Suwon, South Korea</i>	Sep 2021 – Aug 2022
<ul style="list-style-type: none">• Key role in developing high-performance, low-latency physical layer for 5G wireless communication as a member of Physical Uplink Shared Channel team, focusing on core-cycle and cache bottleneck optimization.• Utilized Intel® Intrinsic (AVX-512) for efficient parallel processing of data• Reduced bottlenecks in uplink signal processing pipeline to achieve upto 20% speedup		
Network Engineer Intern, Samsung Electronics	<i>remote from India</i>	Jun 2020 – July 2020
<ul style="list-style-type: none">• Built an automated network load testing framework using Locust & Kubernetes to evaluate performance of Samsung's in-production load balancing services		
Summer Research Intern, TU Braunschweig	<i>Braunschweig, Germany</i>	May 2019 – July 2019
<ul style="list-style-type: none">• Built WeLineation, a full-stack app using Expectation Maximization for sclera segmentation from crowd-sourced data		

TEACHING ASSISTANTSHIPS

CS3410: Computer System Organization & Programming	<i>Cornell University</i>	Fall 2023, Fall 2022
CS4820: Introduction to Analysis of Algorithms	<i>Cornell University</i>	Summer 2023
CS2770: Excursions in Computational Sustainability	<i>Cornell University</i>	Spring 2023
CS251: Software System Lab	<i>IIT Bombay</i>	Fall 2020, Fall 2019
MA105: Calculus	<i>IIT Bombay</i>	Fall 2018
Won TA awards for Fall 2020 and Fall 2022		

PUBLICATIONS

- **Improving low resource code-switched ASR using augmented code-switched TTS** Y. Sharma, B. Abraham, K. Taneja, P. Jyothi [INTERSPEECH 2020]
- **WeLineation: crowdsourcing delineations for reliable ground truth estimation** S. Goel¹, Y. Sharma¹, M.L. Jauer, T.M. Deserno [SPIE Medical Imaging 2020]

RESEARCH EXPERIENCE

MS Thesis Research - Prof. Sanjiban Choudhury	<i>Cornell University</i>	Feb 2023 – (ongoing)
Leveraging vision-language models and GPT-4 for allow human to robot skill transfer through demonstrations		
Undergraduate Thesis - Prof. Preethi Jyothi	<i>IIT Bombay & Microsoft</i>	Aug 2020 – Jun 2021
Improving code-switched Automatic Speech Recognition²		
Developed a new Gujarati-English speech recognition model conditioning the transformer on language of the text		
Improving Low Resource Code-switched ASR using Augmented Code-switched TTS²		Dec 2019 – Jun 2020
Used E2E Automatic Speech Recognition models trained on Hindi and English monolingual data and code-switched Text to Speech (TTS) to improve performance in low-resource settings		
R&D Project - Prof. Amitabha Sanyal	<i>IIT Bombay</i>	Fall 2020
Implemented an automated debugger for GCC plugin designed to detect bugs in C program translation		

PROGRAMMING LANGUAGES AND SOFTWARES

C/C++, python, bash, JavaScript, OCaml & Haskell, Java, SQL, PyTorch & TensorFlow, AVX, Git, Perforce, Linux, Docker, MATLAB, Dart

KEY PROJECTS

Modeling misinformation in hierarchical organizations; Prof. Jon Kleinberg; Spring 2023	<i>Cornell University</i>
Few-shot action recognition on egocentric data; Prof. Kilian Weinberger; Fall 2022	<i>Cornell University</i>
De-mixing techniques for cocktail party problem on bird calls; Prof. Carla Gomes; Fall 2022	<i>Cornell University</i>
Low Resource Morphological Inflection 2021; Evolutionary RL on maze solving 2020;	<i>IIT Bombay</i>

¹Equal contribution

²Work done as part of collaboration between Microsoft India Development Center and Indian Institute of Technology Bombay