

# AVISH PARMAR

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## EDUCATION

### GEORGIA INSTITUTE OF TECHNOLOGY

#### Master of Science in Computer Science

- Part-time studies
- Coursework: Artificial Intelligence for Robotics, Machine Learning for Trading (In Progress)

### SUNY STONY BROOK UNIVERSITY

Aug 2019 - May 2023

#### Bachelor of Science in Computer Science

- Awards and Honors: Dean's List (2019-2023), One of four students recognized in the College of Engineering and Applied Science Dean's State of the College Address (2022), CEAS Most Improved Organization for Stony Brook Computing Society (2022)
- Selected Coursework: Data Structures and Algorithms, Artificial Intelligence, Analysis of Algorithms, Computer Networks, Probability and Statistics, Natural Language Processing, Machine Learning
- Graduate Coursework: Big Data Analytics, Virtual Reality

## SPECIALIZED SKILLS

**Computers:** Eclipse, IntelliJ, PyCharm, VSCode, Android Studio, Anaconda, Unity, Google Colab, Jupyter Notebook

**Technical Languages:** Java, Python, Kotlin, HTML, CSS, JavaScript, MIPS, Git, OCaml, R, C, C#, SQL

**Frameworks:** Bootstrap, React.js, Node.js, Express.js, Jetpack Compose, Jetpack Media3, PyTorch, NumPy, PySpark, Hadoop, Captum, BoTorch

**Databases:** MongoDB, Firebase

**Tech Stack(s):** MERN

**Version Control:** GitHub

**Languages:** Hindi (Fluent); Gujarati (Fluent)

## WORK EXPERIENCE

### Developer Relations Engineering Intern, Google, Mountain View, CA

May 2022 - Aug 2022

- Migrated the Universal Android Media Player (UAMP), a media app with over 12.6k stars and 3.6k forks, to Media3 and added spatial audio features ahead of the Android 13 release making it an app showcasing modern app development (MAD) principles
- Converted UAMP to Compose, a modern UI toolkit for android development, to serve as the go-to media use case for developers transitioning media apps to Compose
- Published a technical blog post on Medium.com showcasing what I had learnt from my experience in migrating UAMP and showcasing my findings, such as limitations of Jetpack Compose, the inner workings of Jetpack libraries and Spatial Audio, and a step-by-step guide in recreating such a media app

## RESEARCH EXPERIENCE

### AI Research Intern, Brookhaven National Laboratory, Upton, NY

Aug 2023 – Apr 2024

- Conducted research at the Center of Functional Nanomaterials (CFN) for the use of machine learning in the advanced understanding of nanoparticles (January 2024 - April 2024)
- Mentored by Dr. Yugang Zhang
- Conducted research in [explainable artificial intelligence \(XAI\)](#) to explain Transformers for the task of generating scientific images by developing XAI methods that are model-agnostic (August 2023 – December 2023)
- Mentored by Dr. Wei (Celia) Xu

### Independent Researcher, Human Language Analysis Beings (HLAB), Stony Brook, NY

Jun 2023 – Feb 2024

- Conducting research with Prof. Andrew H. Schwartz and Prof. Ryan Boyd on the "L-Factor" project which aims to use language analysis to redefine dimensions to represent human personality to a single factor; previously described by [OCEAN](#) and [16 factors of personality \(16PF\)](#)
- Using the [Differential Language Analysis Toolkit \(DLATK\)](#) to conduct factor analysis of large datasets to showcase the emergence of a single factor in describing personality through human language

### Undergraduate Research Assistant, Department of Computer Science, Stony Brook, NY

Aug 2022 - Feb 2023

- Conducted research on the Language & AI Research (LAIR) group under Dr. Ritwik Banerjee on an Information Distortion Project
- Created a baseline experiment using BERT to detect distortions (exaggeration/meiosis) of news headlines

### Team Lead / Full Stack Developer, Tech Business in Development Project, Stony Brook, NY

Jan 2021 - Feb 2023

- Worked on an interdisciplinary team to create a web application (ClubHub) that improves the student experience by providing a platform for 350+ student organizations and 25000+ students to interact with one another
- Spearheaded a team of four by drafting specifications and setting clear goals for the project timeline

## LEADERSHIP EXPERIENCE

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### **Stony Brook Computing Society**

**Aug 2020 - May 2023**

*Vice President (2022-2023), Treasurer (2020-2022)*

- Spearheaded the conceptualization, strategic planning, and dynamic promotion of captivated campus events and advertising campaigns
- Networked with external companies and organizations within the College of Engineering and Applied Sciences to hold collaborative events
- Acted as the point of contact for several initiatives such as sponsorships, fundraisers, and collaborations

### **SUNY Stony Brook University, College of Engineering and Applied Sciences**

**Aug 2021 - May 2023**

*Peer Mentor*

- Served as a support system for three First Year students each year
- Met with my mentees on a weekly basis to conduct check-ins, answer their questions, and provide a space for them to destress and socialize with one another
- In total, I mentored six students

### **SBUHacks**

**Aug 2020 - Sep 2022**

*Event Coordinator / Partner Relations*

- Collaborated with student organizations to host workshops during the hackathon
- Collaborated with the Stony Brook Career Center to raise over \$40k+ in sponsorship between SBUHacks and companies
- Organized the timings of all events, including committee meetings and submission deadlines

### **SUNY Stony Brook University, Department of Computer Science**

**Aug 2021 - Dec 2022**

*Teaching Assistant for Data Structures & Algorithms and Fundamentals of Software Development*

- Hosted weekly in-person recitations and office hours to assist 110+ students in CSE214 with applying lecture material to exercises and 200+ students in CSE316 with assignments and coursework related to full stack web development
- Conducted review sessions to help students prepare for exams and assisted in the grading of exams and homework assignments

## PUBLICATIONS

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1. Xu, W., DeSantis, D. F., Luo, X., **Parmar, A.**, Tan, K., Nadiga, B., Ren, Y., & Yoo, S. (2024). Studying the Impact of Latent Representations in Implicit Neural Networks for Scientific Continuous Field Reconstruction. arXiv preprint arXiv:2404.06418. <https://doi.org/10.48550/arXiv.2404.06418>