

# AKHIL GOEL

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## EDUCATION

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**Georgia Institute of Technology, Atlanta, GA**

*Aug 2018 - July 2023*

*M.S. in Computer Science - Machine Learning*

GPA: 3.5/4.0

Notable Coursework: Machine Learning (ML), Natural Language Processing (NLP), Interactive Robot Learning (Reinforcement Learning), Convex Optimization, High Performance Parallel Computing (HPC)

*B.S. in Mathematics & Computer Science — College of Science Dean's Scholarship*

GPA: 3.67/4.0

Notable Coursework: Data Structures, Algorithms, OOP, Deep Learning, Computer Vision, Perception, AI, Computer Architecture, Systems, Databases, Networking, Linear Algebra, Probability, Statistics, Analysis

**Thomas Jefferson High School for Science and Technology (TJHSST)**

*Aug 2014 - May 2018*

## WORK EXPERIENCE

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**Google**

May 2022 - August 2022

*Software Engineering Intern*

*Mountain View, CA*

- Designed and implemented low-latency subscription free-trial fraud detection system for Google Play Store.
- Analyzed revenue impact of abuse checks and created user experiments to enable ramp-up of abuse verdicts.

**Meta (Facebook AI Applied Research)**

May 2021 - August 2021

*Software Engineering Intern*

*Menlo Park, CA*

- Developed influential instance model interpretability algorithms for Captum, an open-source PyTorch library.
- Implemented novel algorithms from recent research publications and created tutorials for influence methods.
- Designed rigorous testing frameworks and applied algorithms to large Facebook AI Multimodal models.

**Varian Medical Systems**

May 2020 - August 2020

*Software Engineering Intern*

*Atlanta, GA*

- Built automated data preprocessing pipeline and deep volumetric segmentation models for tumor identification.

**MIT Lincoln Laboratory**

June 2019 - May 2020

*Summer Research Intern & Student Technical Researcher*

*Lexington, MA*

- Developed algorithm for novel brain imaging method using Monte Carlo techniques. Co-Authoring publication.
- 1<sup>st</sup> Place Team prize for proposal on automatic American Sign Language translation. Received funding.

## RESEARCH

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**Visually Grounded PointGoal Navigation at CVMLP Lab**

*August 2021 - May 2022*

Developing visual saliency methods for deep RL agent point-goal navigation in dynamic home environments.

**Autonomous Robot Navigation at Georgia Tech IVALab**

*Jan 2019 - May 2020*

Integrating reinforcement learning algorithms with traditional local planning and controls for robotics.

## TECHNICAL SKILLS

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**Programming Languages** Python, C/C++, Java, CUDA, Bash, SQL, Solidity

**Technologies & Tools** PyTorch, TensorFlow, Pandas, OpenMP, MPI, Git, Docker, AWS, Qiskit

## LEADERSHIP & EXTRACURRICULAR

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**External Operations - The Agency:** President for AI/ML research club at Georgia Tech.

**Graduate TA - Computer Vision:** Led keypoint matching project (SIFT), taught students in office hours.