AKHIL GOEL

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EDUCATION

Georgia Institute of Technology, Atlanta, GA *Aug 2018 - May 2022 (Expected)*
Bachelors of Science in Mathematics & Computer Science GPA: 3.84/4.0

Thomas Jefferson HS for Science & Technology *July 2014 - June 2018*

WORK EXPERIENCE

Varian Medical Systems May 2020 - August 2020
Softare Engineering Intern *Atlanta, GA*

- Built automized data preprocessing pipeline for developing local deep learning segmentation models,
- Developed deep volumetric models for organ segmentation within Varian's oncology PACS: Velocity.
- Presented project & pitched call-to-action to panel of Varian executives, received a top score.

MIT Lincoln Laboratory June 2019 - August 2020
Summer Research Intern & Student Technical Researcher *Lexington, MA*

- Used Monte-Carlo simulations to develop a time-gating algorithm for a novel imaging technique.
- Poster presentation at SPIE Photonics West, San Francisco, February 2020. "Towards Automatic Time-Gating for Time-Domain Diffuse Correlation Spectroscopy." Paper available at bit.ly/AGpaper1.
- Implemented convolutional neural network architectures for nuclei segmentation and quantification of neurodegenerative disease biomarkers.
- 1st Place Team and Best Poster in Intern Innovative Idea Challenge for proposal on automatic American Sign Language translation. Received funding for continued project development.

PROJECTS

3D Texture Generation at Georgia Tech Hays Lab *August 2020 - Current*
Research on using Generative Adversarial Nets and Neural Rendering to produce textured 3D images.

American Sign Language Translation at MIT Lincoln Laboratory *June 2019 - January 2020*
Developed project proposal for automatic American Sign Language translation through deep learning with a team of six other interns. Continued research development is funded by MIT Lincoln Laboratory

Autonomous Robot Navigation at Georgia Tech IVALab *Jan 2019 - May 2020*
Applying reinforcement learning algorithms to improve traditional local planning methods in robotics.

TECHNICAL SKILLS

Programming Languages	Python, C/C++, Java, Bash, Matlab
Software & Tools	Git, Numpy, PyTorch, TensorFlow, LaTeX, Mathematica
Concepts & Coursework	Probability Theory, Statistics, Applied Combinatorics, Real Analysis, Abstract Algebra, Data Structures, Algorithms, AI, Computer Vision, Deep Learning, Vector Calculus, Linear Algebra, Comp. Architecture

LEADERSHIP & EXTRACURRICULAR

The Agency - Treasurer: Officer for the AI/ML research club at Georgia Tech. Lead weekly beginner workshop series on theory and application of neural networks, preparing lectures, planning events.