

Alexander Yoon

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY

Atlanta, Georgia

M.S. Computer Science: Machine Learning

May 2026

B.S. Computer Science: AI/ML and Simulations | 3.81/4.0 GPA

May 2025

EXPERIENCE

BLACKSTONE

Miami, FL

Incoming Summer Data Analyst

June 2025 – August 2025

GEORGIA TECH, COLLEGE OF SCIENCES

Atlanta, GA

Lead TA: Machine Learning for Environmental Studies

January 2025 – Present

- Curated a 12GB dataset through an ETL pipeline, standardizing data from NASA and NOAA satellites, and storing in AWS S3.
- Guided students in time-series forecasting with statistical regressions, tree-based models, and RNNs, achieving a top R^2 of 72%.
- Demonstrated image classification on land use satellite data using CNN deep learning models, achieving an accuracy of 98%.
- Hosted weekly office hours to assist 40 enrolled students with debugging project code and clarifying machine learning concepts.

SARHADI LAB GROUP

Atlanta, GA

Undergraduate Researcher

April 2024 – Present

- Built a hurricane damage predictive model (k-fold R^2 48%) using alpha-beta and beam-search algorithms for feature selection, statistical transformations, and data selection on physics-based flood depth simulations.
- Accelerated model training time from 18 hours to 8 hours by implementing parallel processing (HPC) on the GT supercomputer.
- Secured \$50,000 in funding by designing an Azure cluster and estimating model training costs for a successful grant proposal.

GEORGIA TECH, SCHOOL OF MATHEMATICS

Atlanta, GA

Curriculum Developer

January 2023 – Present

- Streamlined lecture content creation using slide templates and TikZ visuals, reducing production time by 75% (8 to 2 hrs).
- Produced short-form lecture content showcasing applications of linear algebra, resulting in a 17% increase in student viewership.
- Facilitated class forums for 4,000+ students, created 60 practice problems with comprehensive solutions, and developed 7 interactive animations to communicate linear algebra concepts for non-technical audiences.

PROJECTS

DOSEINFO (APP) | RESTful APIs, Node.js, React, Figma, JavaScript, HTML, Llama, Jira

May 2024 - December 2024

- Led a team of 4 through an Agile development cycle to create a web application that calculates dosages for 100+ medications.
- Integrated a generative AI model (LLM) to deliver personalized drug interaction warnings and dosage recommendations.
- Managed version control on a shared codebase using GitHub, implementing branching strategies for software development.

PART (APP) | React, Flask, Beautiful Soup, NLTK, Seaborn, Matplotlib, Pandas, Sklearn

January 2024

- Organized a 4-person team to develop a web app enabling fractional ownership of blue-chip art as an investment platform.
- Implemented ELT pipelines and NLP sentiment analysis on 30+ art articles to generate investment forecasts.

EU SOCCER PREDICTIONS | PyTorch, Sklearn, Pandas, NumPy, Matplotlib

August 2023 – December 2023

- Collaborated on a team of 5 to build a soccer match prediction model achieving 70% accuracy, outperforming betting odds by 8%.
- Optimized model accuracy by 10% through feature engineering, dimensionality reduction, and hyperparameter tuning.

SKILLS

- **Leadership:** Boxing Club (Competition Team), Wreck Camp (Counselor), ROTC (Squad Leader), Delta Chi (J-Board, Exec)
- **Relevant Coursework:** Machine Learning, Deep Learning, Artificial Intelligence, Data Structures & Algorithms, Systems & Design, Algorithm Design & Analysis, Probability & Statistics, Objects & Design, Object-Orientated Programming
- **Skills:** Programming (Python, C/C++, Java, JavaScript, MySQL, SQLite), Cloud Computing (AWS, Azure), AI (scikit-learn, TensorFlow, PyTorch, Llama), Data Visualization (Tableau, Seaborn, Matplotlib, Plotly), Software Development (Node.js, HTML, CSS, Jira, Git, Bash, Docker, RESTful APIs, Figma), Microsoft Suite (Excel, Teams, Outlook, Powerpoint)