

# Jaegook (Alex) Kim

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## EDUCATION

- Georgia Institute of Technology**, Atlanta, GA Aug 2023 - May 2025  
Master of Science in Computer Science (Specialization: Machine Learning) GPA 4.00/4.00
  - Courses: Algorithms, Deep Learning, Database Systems, Database Implementation, Data & Visual Analytics

**Georgia Institute of Technology**, Atlanta, GA Aug 2018 - May 2023  
Bachelor of Science in Computer Science (Concentrations: Theory and Intelligence) GPA 3.86/4.00
  - Courses: Machine Learning, Probability & Statistics, Data Structures, Linear Algebra, Object-oriented Program
  - Military service leave from Fall 2020 - Spring 2022 for Republic of Korea Army

## EXPERIENCE

- Georgia Institute of Technology, College of Computing** Atlanta, Georgia  
*Graduate Teaching Assistant: Graduate Algorithms* Aug 2023 - Present
  - Instruct and assess 1300+ masters students interested in the field of machine learning and algorithms
  - Collaborate with Dr. Gerandy Brito to adapt lesson plans for online students to have the best in-class experience
  - Lead discussions on EdDiscussions, grade 55 student homework weekly, and proctor tests for academic integrity

**DuckAI** Atlanta, Georgia  
*Machine Learning Researcher* May 2023 - Aug 2023
  - Researched and built a multimodal computer agent that interacts with a computer the same way humans do
  - Data scraped to create a dataset of 10,000+ latex documents and youtube videos to train the multimodal agent
  - Designed and 3D-printed glass frames to hold a webcam and eye trackers to mimic and track eye movement

**NCR Corporation** Atlanta, Georgia  
*Software Engineering Intern* May 2020 - Aug 2020
  - Released beta app to collect data on change in demand of food & supplies at gas stations to maximize profit
  - Designed a survey and analyzed correlation between weather and items sold from 80 user responses
  - Operated with React, TypeScript, and Google Firebase to display questions and store in-stock supply in real-time

## RESEARCH/PROJECTS

- Detecting Counterfeit Amazon Products, Natural Language Processing** Aug 2023 - Present
  - Classify Amazon counterfeit products, fine-tuning BERT and Llama2 with reviews, comments, and product rating
  - Publish a research paper on the findings and performance of the language models in correctly detecting products

**Predicting Flight Delays, Data Science & Machine Learning** Aug 2023 - Dec 2023
  - Curated a 500,000 row flight and weather dataset and deployed a Random Forest model with 86% accuracy
  - Implemented APIs to dynamically retrieve live flight and weather data, enabling real-time predictions on flights

**Language Model Apps Optimized by Machine Learning Databases** Sep 2023 - Nov 2023
  - Integrated EvaDB and Embedchain as data platforms to create interactive LLM powered bots using OpenAI API
  - Optimized data storage on EvaDB using HuggingFace Whisper for audio and DistilBERT for text summarization

**Hateful Content Detection in Memes, Deep Learning** Mar 2023 - May 2023
  - Designed DL models using BERT, GPT2, XLNet, and ResNet with 60% accuracy determining hateful text/images

**IBM Watson, Creating AI Agent for Scalable Online Learning** Sep 2019 - May 2020
  - Increased precision from 71% to 86% using knowledge graphs with Neo4j, connecting similar student questions
  - Incorporated the BERT algorithm to improve the virtual teaching assistant agent search coverage of the syllabus

**Code Pattern Recognition, Automated Code Analysis** Jan 2020 - May 2020
  - Integrated auto-personalized feedback into CS1301 to improve 4000+ students' code optimization to present day

## LEADERSHIP

- Getting to Know U** Atlanta, Georgia  
*Research Lead under Dr. Chaouki Abdallah* Aug 2022 - Dec 2023
  - Analyzed compatibility between HBCUs and GT leading the new initiative to promote educational equality
  - Resulted in GT Research Exec connecting and collaborating with HBCUs I proposed with 3 page analysis report

**Georgia Institute of Technology, College of Computing** Atlanta, Georgia  
*Undergraduate Teaching Assistant: Computing in Python* Aug 2019 - May 2020; Aug 2022 - May 2023
  - Led the research subteam of TAs to find ways to better assist online students using data from the last 5 years
  - Analyzed and queried the OMSCS edX database to find correlation between grades and study patterns

## SKILLS/PERSONAL

**Tools/Software:** Tableau, Numpy, Pandas, SQLite3, Flask, OpenRefine, Scikit-Learn, Excel, Pytorch, Tensorflow, Scipy, Node.js, Github, Figma, React, Docker, Github, Postman, Jira, Agile Methodology, Linux, MongoDB, D3, Spark, AWS  
**Programming:** Python, Java, MySQL, C, C++, JavaScript, TypeScript, HTML **Languages:** Korean, English, Spanish