

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

IBM Watson Design & Intelligence Lab Atlanta, Georgia
Research Assistant under Dr. Ashok Goel 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
 - Labeled 1000+ questions to see correlations between JW response accuracy and the phrasing of a question

RESEARCH/PROJECTS

- Detecting Counterfeit Amazon Products, Natural Language Processing** Aug 2023 - Dec 2023
 - 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

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

Predicting Heart Attack, Machine Learning May 2022 - Jul 2022
 - Evaluated 13 features of patients and created an 88% accuracy decision tree model applicable to industry

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