Seohee Yoon

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Objective

I am pursuing a Master's in Computer Science at Georgia Tech, integrating industry experience and research as a Data Scientist. Passionate about solving challenges posed by complex real-world datasets using machine learning techniques and data analytics skills.

Education

Georgia Institute of Technology — **Atlanta, Georgia**

Master of Science in Computer Science — *Aug 2024- Dec 2025*

Bachelor of Science in Computer Science — *Jan 2022 - May 2024*

Experience

PTKOREA — **Seoul, South Korea**

Big Data Analysis and Operation Assistant Intern — *Jun 2024 – Aug 2024*

- Organized and maintained data for over 1,000 customer accounts, using Jira and Tableau to track and resolve account-related issues efficiently
- Managing the periodic modification and mapping of databases, ensuring consistency with data dashboard using Excel and Adobe Analytics
- Participated in team meetings with international clients, enhancing communication and resolving complex customer issues

Data Driven Education, Georgia Institute of Technology — **Atlanta, Georgia**

Research Assistant - Data Scientist — *Aug 2022 – Dec 2023*

- Designed a dataset for training Regressor and Discrimination Estimation model to predict problem difficulty
- Applied machine learning techniques (Random Forest, Decision Trees, Support Vector Machines) to predict difficulty levels of assessments based on the Depth of Knowledge (DOK) framework
- Scaled the dataset size from 50 to 900, improving the random forest model's accuracy by 50% compared to the baseline
- Evaluated multiple regression models using Python and Sklearn, resulting in improved accuracy of assessment difficulty predictions for educational research

Projects

Respiratory Diagnosis Assistant — *Feb 2024 – May 2024*

- Developed a machine learning-powered web application for lung sound classification, enhancing diagnostic accuracy from 70% to 83% by implementing a GRU model and data augmentation techniques
- Managed data using MongoDB and Amazon S3, integrating the database with Django to improve data accessibility

Stock Market Prediction Project — *Feb 2024 – May 2024*

- Predict stock price changes using several machine learning algorithms such as Support Vector Regression, Linear Regression, and LSTM
- Decomposed price trend data into low and high frequency components using Discrete Wavelet Transform (DWT) to enhance model generalization
- Evaluate linear regression models using K-fold cross-validation, resulting in 95% accuracy in prediction
- Visualize prediction results from various models and compared each accuracy using Tableau

Scene Recognition with Deep Learning Project — *Nov 2023*

- Developed a convolutional neural network (SimpleNet) with 2 convolution layers which aligns with given training
- Implemented data augmentation techniques, normalization, and regularization to improve model accuracy by 30%
- Enhanced a pretrained ResNet model using PyTorch by modifying specific layers to optimize its architecture, resulting in an improved testing accuracy of 85%

Skills

Python, SQL, Tableau, Pyspark, Git, D3, JavaScript, Excel, Java, C, Assembly, React Native, C#, Docker