Seohee Yoon

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Education

Georgia Institute of Technology	**Atlanta, Georgia**
Bachelor of Science in Computer Science	*Jan 2022- May 2024*
Master of Science in Computer Science	*Aug 2024 - Dec 2025*
GPA: 3.72	

Experience

PTKOREA   **Seoul, South Korea**

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

- Leveraging Jira and Tableau to organize customer requirements, resolve account-related issues, and manage about 1000 customer account data effectively
- Actively participating in customer meetings across various countries with team members, recording and summarizing the minutes, and enhancing the members' work efficiency
- Managing the periodic modification and mapping of databases to cater to the needs of professionals across diverse disciplines, ensuring system consistency and reducing the likelihood of errors

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

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

- Identified the level of difficulty for the actual assessment from the dataset based on the Depth of Knowledge (DOK) framework utilizing Python, Google Colab, and Term Frequency - Inverse Document Frequency (TF-IDF) algorithm
- Designed a dataset for training Regressor for Difficulty and Discrimination Estimation model to predict problem DOK level
- Evaluated various algorithms (Random Forest, Decision Tree, Support Vector, Linear Regression, Ridge Regression) for optimal model using scikit-learn library
- Expanded testing data in the dataset from 50 to 900 data leveraging problems from various subjects
- Reduced mean absolute error about 50% using random forest than support vector algorithms with more data

Projects

Respiratory Diagnosis Assistant   *Feb 2024 – May 2024*

- Developed an automated lung sound classification Web using machine learning, improving accuracy from 70% to 83% through data augmentation and a GRU model
- Managed complex data structures with MongoDB and Amazon S3, integrating with Django for database operations
- Enabled predictive diagnostics and streamlined workflow for healthcare professionals by providing instant access to relevant audio samples and patient information

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
- 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 dataset using PyTorch
- Implemented data augmentation techniques, normalization, and regularization to improve training accuracy and validation accuracy by 30% of the network
- Enhanced pretrained resnet from pytorch's API by modifying layer of model to get a testing accuracy of 85%

Campus Discovery Service Project   *Aug 2022 – Dec 2022*

- Collaboratively engineered a Campus Discovery Service Application with a team of 5 within an Agile framework comprising 6 sprints
- Designed user interface and user experience for five iOS application screens, employing JavaScript and React Native
- Utilized version control systems and enhanced team collaboration by integrating and consistently using GitHub for code management and project tracking

Skills

Python, Java, MySQL, Git, NumPy, Pandas, C#, Assembly Programming, C, React, Tableau, JavaScript, React Native