

# Jangwon Seo

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## PROFESSIONAL SUMMARY

UBC Statistics student with practical experience in **data preprocessing**, **ETL automation**, and **machine learning model development**. Skilled in building data pipelines and preparing structured datasets for training using **TensorFlow**, **PyTorch**, and **scikit-learn**. Passionate about applying ML to real-world, data-driven systems.

## EDUCATION

### The University of British Columbia

*3rd Year, Bachelor of Science in Statistics*

Vancouver, BC

*Expected Graduation: 2027*

- **Relevant Coursework:** Data Science, Machine Learning, Probability, Statistical Inference, Regression Analysis, A/B Testing, Databases and Algorithms

## PROJECTS

### ETF Dividend Forecasting with LSTM Neural Networks

- Built automated ETL pipelines to collect and preprocess financial data from multiple ETF tickers for time series modeling.
- Trained and tuned an LSTM architecture in TensorFlow/Keras, achieving an RMSE of 0.047 and outperforming baseline regression models.
- Enhanced predictive accuracy through feature scaling, temporal cross-validation, and performance evaluation using scikit-learn metrics.

### GAN for Composite Generation with User Feedback

- Utilized a pre-trained GAN in PyTorch to generate facial composites through feedback-guided latent-space optimization.
- Integrated user ratings into an iterative refinement loop to improve image similarity and optimize latent representations.
- Evaluated convergence via Euclidean distance in latent space and visualized progression through image comparisons and feature plots.

### Coffee Quality and Specialty Classification

- Developed an end-to-end ML pipeline for coffee quality prediction using regression and tree-based models, achieving ROC-AUC of 0.71.
- Performed hypothesis testing and ANOVA to validate key predictors of cup quality.
- Applied SHAP for feature attribution and interpretability, identifying key contributors to specialty classification.

## WORK EXPERIENCE

### Contract Web Developer

May 2025 – Current

*Canada, South Korea*

*Remote*

- Worked with clients to design and deliver **web-based business solutions** powered by data automation and visualization.
- Automated **data ingestion and preprocessing pipelines** using Python (Pandas, NumPy) to prepare datasets for ML experimentation.
- Integrated **API-based geospatial data** and engineered features for model training and evaluation.
- Built a **WMS-based visualization interface** for interactive exploration of ML-ready datasets.

### Facility Manager

Aug. 2022 – May. 2024

*Cheongju, South Korea*

*Air Force Academy*

- Automated infrastructure scheduling using Python, improving workflow transparency and documentation.
- Led a team of 8 soldiers, ensuring operational reliability and equitable task allocation.

## TECHNICAL SKILLS

**Languages:** Python, SQL, R, C++, Java

**ML & Analytics:** TensorFlow, Scikit-learn, Pandas, NumPy, Matplotlib, SQL

**Visualization & Tools:** Tableau , Power BI, Django, Git, Azure, Heroku

**Statistical Methods:** Regression, Hypothesis Testing, A/B Testing, Feature Selection, Cross-Validation