Jangwon Seo

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EDUCATION

The University of British Columbia   Vancouver, BC
3rd Year, Bachelor of Science in Statistics   *Expected Graduation: 2027*
- **Relevant Coursework:** Data Science, Machine Learning, Probability, Statistical Inference, Regression Analysis, Databases and Algorithms

EXPERIENCE

Freelance Web Developer   May 2025 – Current
Smartmove Electrical & Automation, SP Development   *Remote*
- Designed and optimized end-to-end data pipelines, integrating public APIs for automated data ingestion, transformation, and validation.
- Built ETL workflows with Python, Pandas, and NumPy to deliver accurate, up-to-date datasets for geospatial and tabular visualization.
- Developed client-facing tools, enabling users to select regions on interactive maps and view API-powered data in geospatial and tabular visualizations, alongside CSV export features for decision-making.

Facility Manager   Aug. 2022 – May. 2024
Air Force Academy   *Cheongju, South Korea*
- Led and mentored a team of 8 soldiers while overseeing operational infrastructure.
- Automated task management with Python, including scheduling system optimizing shift allocations, reducing manual workload and documenting processes for team use.
- Applied constraint validation for fair and transparent scheduling, ensuring operational reliability.

PROJECTS

Stock Dividend Trend Analysis and Predictive Modeling 🔗
- Processed 10,000+ financial records via Python ETL pipelines and built predictive models; structured outputs for visualization and reporting (matplotlib).
- Implemented an LSTM model in TensorFlow/Keras to predict dividends, achieving 83.42% accuracy.
- Optimized performance with the Adam optimizer and applied scikit-learn evaluation metrics, reducing MSE and improving accuracy by 99% vs. SGD baseline.

GAN for Composite Generation with User judgment/preferences 🔗
- Applied GAN to generate facial composites from eyewitness input, tuning parameters to enhance resemblance.
- Utilized PyTorch/NumPy for model integration and Matplotlib for post-analysis visualization.
- Designed a latent-space optimization guided by user ratings to iteratively improve similarity of output.

PC Gamer Newsletter Subscription Prediction 🔗
- Collaborated with a team to preprocess player age & playtime data from a Minecraft server; built a KNN classifier in R, tuning neighbors via cross-validation.
- Evaluated accuracy/precision/recall on a test set and delivered stakeholder insights with visualizations of playtime patterns.

Kaggle Competitions 🔗
- Housing Price Prediction (Regression Models): Compared linear regression, decision trees, and random forest; implemented random forest to predict housing prices based on multiple features.
- LLM Response Classification (NLP): Built TF-IDF + multinomial logistic regression pipelines with ensemble averaging, evaluated via 5-fold CV (accuracy/log-loss) to classify chatbot responses.

TECHNICAL SKILLS

Languages: Python, R, SQL, C++, Java, JavaScript, HTML/CSS
Data & ML: PyTorch, Scikit-learn, Pandas, NumPy, TensorFlow, Tableau, PowerBI
Web & Tools: Django, MySQL, Git, Azure, Heroku