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Sungwon Lee

Junior Data Scientist

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Results-oriented Data Scientist specializing in AI and machine learning. I hold a Bachelor's in Statistical Data Science from UC Davis and am currently pursuing a Master's in Applied Data Science at San Jose State University, expected to graduate in May 2025. On the current project, I am trying to embed ViT-YOLO architecture with different architectures such as Transformer detection head to implement on UAV object. I am eager to leverage my expertise to drive data-driven solutions while contributing to team success and enhancing overall performance.

SKILLS

Tools and Languages	Git, \LaTeX , MySQL, Python, R, PyTorch, PySpark, Tableau, TensorFlow
Quantitative Research	Machine Learning, Mathematical Modeling, Mathematical Optimization, Statistics and Probability
Communication	English(Proficient), Korean(Proficient)

TECHNICAL EXPERIENCE

Data Science Teacher's Assistant <i>San Jose State University</i>	Jan 2024 — Present <i>San Jose, CA, US</i>
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- Led weekly review & demo session, enhancing student understanding of complex mathematical concepts
- Authored lab questions, facilitating hands on learning and reinforcing key concepts
- Led office hours, providing students with assistance and clarifying their doubts on course materials

Marketing Manager at Silicon Valley IT Business Center <i>Korea Trade-Investment Promotion Agency</i>	Aug 2022 — Jul 2023 <i>San Jose, CA, US</i>
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- Monitored and analyzed semiconductor market trends to identify opportunities for product and service enhancement
- AI tech industry expert with a strong background in crafting and executing strategic marketing initiatives for IT businesses in Silicon Valley
- Collaborated with global tech leaders and venture capital investors to drive business growth and customer engagement

Data Analyst Intern <i>PMC Corporation</i>	Apr 2021 — Jul 2021 <i>Seoul, KR</i>
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- Analyzed and visualized exportation and importation data of the company's chemical products
- Tracked the latest Southeast Asian trading trend and corresponding raw materials' daily market price
- Translated Korean documents into English and sent business mail to the Malaysia partner company

PROJECTS

Facial Expression Recognition Analysis <i>San Jose State University</i>	<i>San Jose, CA, US</i>
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- Optimized YOLOv7 for Facial Expression Recognition, achieving 95% accuracy and 93% F-1 score
- Enhanced real-time emotion detection using a data balancing technique that merged 12 emotions into four key categories

Leveraging Sentiment Analysis for Enhanced Stock Price Prediction Using PySpark <i>San Jose State University</i>	<i>San Jose, CA, US</i>
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- Integrated sentiment analysis using PySpark from financial news with traditional indicators for stock prediction, achieving a 6.36% accuracy boost for NVIDIA using the Random Forest model
- Demonstrated model and stock-dependent impact, with sentiment analysis improving results for NVIDIA but showing mixed or negligible effects for Apple and other models

EDUCATION

Master's Degree: Applied Data Science , <i>San José State University</i>	Aug 2023 — Present
Bachelor's Degree in Statistics: Statistical Data Science / Minor in Mathematics , <i>University of California Davis</i>	Jun 2022
ADSP(Advanced Data Analytics Semi-Professional) Certificate , <i>KOREA Data Agency</i>	Jun 2021

ACTIVITIES

Board Member <i>Korean Aggies United</i>	Sep 2018 — Jun 2020 <i>Davis, CA</i>
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- Directed and supervised overall operations and coordinated fundraising events for 250 Korean students' alumni connections
- Mentored Freshman Korean students about major courses and academic careers