

Jimin Lee

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Education

Washington University in St. Louis, St. Louis, MO (September 2022 - May 2026)

Bachelor of Science in **Data Science** | Minor in Music | GPA: 3.99

Courses: Introduction to Machine Learning, Data Structures and Algorithm, Data Manipulation and Management, Probability, Linear Statistical Models, Introduction to Data Visualization

Experiences

Teaching Assistant for CSE314A | Engineering Undergraduate Student Services Tutor

(August 2024 -)

- Support ~30 students in *Data Manipulation and Management*, mastering course concepts related to ETL pipelines, SQL databases, and data visualization through hands-on projects
- Conduct individual and group tutoring weekly for *Matrix Algebra* and *Introduction to Data Science*, covering data preprocessing and machine learning models

Cadence for Care

Program Leader (December 2023 -)

- Organize weekly music performances at Siteman Cancer Center, leveraging leadership and community service training to foster a supportive environment through the therapeutic power of music

WashU Residential Advisor

(August 2024 -)

- Cultivate community among ~70 residents by organizing monthly events, conducting individual check-ins, supporting diversity, inclusion, and healthy excellence, enforcing safety policies, and maintaining communication with staff on student needs and internal operations

Projects

Deep Learning-Driven Assessment of iPSC Colony Health from Bright-Field Imaging

- Created 3D biological simulations of stem cell colonies in Blender and trained over 50 YOLOv8 models for object segmentation.
- Optimized model parameters, comparing stochastic and batch gradient descent approaches, and utilized GPU acceleration to improve processing speed and performance on 4x scaled microscopic images

Stroke Prediction Project

- Developed a logistic regression model to predict stroke risk, created a 2D PCA visualization, and produced a scatterplot of the top two features from the first principal component

Analysis of Uber and Lyft Rides in Boston

- Performed exploratory data analysis (EDA) on a Boston Lyft and Uber ride dataset to identify factors impacting ride prices, using NumPy, Matplotlib, Seaborn, and SciPy

Skills

Technical Skills: Python, JavaScript (D3.js), HTML/CSS/Bootstrap, Flask, Git, SQL, PyTorch, Docker

Soft Skills: Problem-solving, communication, organization, leadership, execution, empathy

Honors

Dean's List (2022-2024), BioSURF Fellow (2024), Korean Presidential Science Scholarship (2022-2026)