

# Alexander Vincent Lewi

+65 8884 8481 | [avlewi.2021@scis.smu.edu.sg](mailto:avlewi.2021@scis.smu.edu.sg) | [linkedin.com/in/lewivincent](https://www.linkedin.com/in/lewivincent) | [vincentlewi.github.io](https://vincentlewi.github.io)

## EDUCATION

<b>Singapore Management University</b> <i>B.Sc. (Information Systems), majoring in Business Analytics with 2<sup>nd</sup> major in Data Science</i>	<b>Singapore</b> Aug 2021 – May 2025
<b>Saint Joseph College Senior High School</b> <i>Diploma in Science</i>	<b>Malang, Indonesia</b> Jul 2018 – May 2021

## EXPERIENCE

### Research Assistant | Singapore Management University | May 2024 – Present

- Collaborated with an associate professor and PhD students on research in the field of generative AI
- Ideated and experimented on multiple research problems, such as text-to-3D and image/video customization

### Data Scientist Intern | Aboitiz Data Innovation | June 2024 – August 2024

- Designed and implemented a data processing pipeline that optimized real estate price predictions, achieving a 4% Mean Absolute Percentage Error (MAPE) – a new state-of-the-art for the industry.
- Automated data extraction and cleaning processes, reducing manual effort and improving overall model accuracy.

### Data Analyst Intern | Tribelio Indonesia | May 2023 – August 2023

- Leveraged statistical techniques and data mining tools to perform analysis of transaction data and user behavior.
- Led the development of a user tracking system on the platform, effectively increasing the company's ability to monitor and understand user interactions and engagement.

### Curriculum Director | SMU Business Intelligence and Analytics Club | March 2022 – May 2023

- Curated and delivered data science workshops to SMU students to enrich and garner their interest in data science.
- Developed data science workshop materials for ExploreSCIS'22, an outreach program targeting prospective students from JCs and Polytechnics.

## PROJECTS

### satelilit.ai – Final Year Project | Aboitiz Data Innovation | Jan 2024 – Apr 2024

- Worked closely with a senior data scientist to build a real estate price prediction platform, designed to assist homeowners in Metro Manila with determining the optimal selling price for their properties.
- Carried out thorough research and experiments in the usage of satellite images to improve the ensembled deep learning and tree-based models' capability to predict real estate prices through visual data.
- Developed a spatial interpolation model that can predict the prices not only from their structural features, but also the geospatial features extracted from the nearby houses.
- Integrated LIME and LLMs for model interpretability, offering users clear explanations of predictive outcomes, increasing trust, and understanding of property valuations.

### Movie Recommender

- Scraped over 100,000 movies from IMDb using BeautifulSoup4 and Selenium.
- Implemented a neural network model to perform embedding-based collaborative filtering, considering both user-based and item-based similarity to provide personalized movie recommendations.
- Enhanced recommendation accuracy by integrating content-based filtering to analyze movie metadata.

## PUBLICATIONS

### DLVS4Music2Sheet | RAFDA 2024

- Developed a novel music source separation system to transcribe multi-vocal acapella audio into sheet music.
- Engineered a custom source separation pipeline that leveraged advanced deep learning models, Open-Unmix and Band-Split Recurrent Neural Networks (BSRNN).

## TECH STACK

- Data Science: Python (TensorFlow, PyTorch, SKLearn, SHAP, LIME), R, Tableau, Alteryx, BS4, Selenium
- Web Development: JavaScript (ReactJS), SQL (Supabase), NoSQL (Firebase), Docker, FastAPI, Flask, Figma