

Rafi Pangestu

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Internship Availability: May 2023 – August 2023 (Full-Time)

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EDUCATION

Nanyang Technological University, Singapore

Aug 2021 – Present

Bachelor of Engineering (Honours) - Chemical and Biomolecular Engineering

CGPA: 4.60/5.00 (As of December 2022)

Selected Coursework: Engineering Statistics, Intro to Computational Thinking

Online Certifications: DeepLearning.AI Deep Learning Specialization (Coursera), Professional Data Scientist (DataCamp)

SKILLS

- **Analytics:** Python (Pandas, NumPy, Seaborn, Matplotlib), SQL, Tableau, MS Excel, MATLAB, AWS RDS, GCP, Google Sheets, PySpark, MongoDB
- **Machine Learning:** Scikit-Learn, XGBoost, Keras, PyTorch, Optuna
- **Toolkits:** Git, Jupyter Notebook, Visual Studio Code, Bash terminal, Google Colaboratory, pgAdmin4
- **Web Development:** HTML, CSS, JavaScript, Bootstrap, ReactJS
- **Spoken Languages:** English, Bahasa Indonesia

PROJECTS

Full-stack Happiness | ETL, Analytics, AWS RDS, Python, PostgreSQL, Tableau, Excel [\[GitHub Link\]](#) [\[Tableau\]](#)

- Took data from various sources (OECD, Statista, etc.) and carried out data cleaning using Python and Excel.
- Engineered an AWS RDS instance and uploaded data using PostgreSQL (utilizing Psycopg2 and pgAdmin4).
- Mined the database and carried out EDA with Pandas and PandaSQL to analyze data using SQL syntax.
- Designed a dashboard of the factors contributing to life-satisfaction index using Tableau for European countries.

Earthquakes Magnitude Prediction | Regression, Python, XGBoost, Scikit-Learn, Time-Series [\[GitHub Link\]](#)

- Engineered an XGBoost regression model to predict the magnitude of Indonesian earthquakes given latitude, longitude, and timestamp of earthquake.
- Tuned the model using Bayesian optimization, utilizing the Optuna hyperparameter tuning library.
- Final model managed to achieve 13.6% Weighted Absolute Percentage Error (WAPE) on the validation set.

Wheelchair Accessibility Prediction | Classification, Python, XGBoost, Scikit-Learn [\[GitHub Link\]](#)

- Developed a machine learning model to predict whether an event is wheelchair accessible using XGBoost.
- Wrote data analysis and reasoning for feature engineering techniques using markdowns and visualization packages.

Personal Website | HTML, CSS, JavaScript, Bootstrap [\[GitHub Link\]](#) [\[Website\]](#)

- Developed a personal website using HTML, CSS, JavaScript, and GitHub-Pages.

CO-CURRICULAR ACTIVITIES

Indonesian Cultural Night Musical Production (ICN 2023)

Jul 2022 – Present

Director of Corporate Liaison

- Secured and organized canvassing deals with NUS and Standard Chartered, resulting in deals worth 5000 SGD in total.
- Orchestrated flower sales during NTU class of 2022 convocation, amassing around 500 SGD in profit.

NTU School of Chemical and Biomedical Engineering (SCBE) Student's Club

Sep 2021 – May 2022

Assistant Director of Social Events

- Spearheaded a team of 11 members to create 3 social events for SCBE undergraduate students.
- Hosted SCBE Trivia Night 2021 and doubled the participation rate compared to last year's SCBE Trivia Night.
- Orchestrated SCBE Festival Week, a 3-day physical festival event with various booths which had 100+ unique participants.

ACHIEVEMENTS

Bronze Medalist – Indonesian National Chemistry Olympiad 2019 / OSN Kimia 2019 (Issued by Indonesian Ministry of Education and Culture)