Lee Wan Wei
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Technical Skills: Python, AutoCAD, Rhino, Ruby, JavaScript, SQL, HTML, CSS

Singapore University of Technology and Design
- Bachelor of Science (Design and Artificial Intelligence) **Sep 22 to Present**

WORK EXPERIENCES

CyberG7 Technologies **Aug 24 – Dec 24**
AI Automation Engineer Intern
- Designed and implemented AI-driven automation workflows to streamline business operations
- Integrated AI platforms and tools using APIs to enable seamless data exchange and workflow functionality.
- Researched and identified optimal tools and configurations for specific business objectives
- Collaborated with cross-functional teams to translate business needs into customized AI solutions.

PROJECTS

AI Text Training Simulator **Present**
- Developed an advanced training platform for customer service agents using FastAPI and Next.js with the Tailwind CSS framework
- Implemented a RAG (Retrieval-Augmented Generation) model to enable the simulator to provide fact-based, accurate responses to user queries, enhancing the learning experience.
- Designed and implemented an Evaluator AI that grade agent responses based on a quality service rubric, leveraging the RAG model to evaluate the accuracy of the simulated customer service interactions.
- Built a Chatbot to simulate realistic customer interactions, training it on historical transcripts and an FAQ database, improving the chatbot's ability to handle diverse customer inquiries.

Traffic Accident Hotspot Prediction **Present**
- Designed and implemented Graph Convolutional Network (GCN) to predict traffic accident hotspots across Singapore's road network by integrating geospatial and real-world sensor data
- Engineered node features by spatially mapping environmental data, traffic volume and casualty data to individual road segments
- Visualized training metrics and model outputs (accuracy, loss curves, predicted hotspot maps), demonstrating the model's capacity to generalize spatial and environmental patterns.

AI Applications in Design – Sentiment Analysis
- Conducted data collection through web scraping of YouTube comments, Amazon reviews, and Reddit posts, utilizing APIs for efficient data retrieval.
- Incorporate models to analyse sentiment, identifying positive and negative feedback on products.
- Generated actionable recommendations for users to improve products based on sentiment analysis results.

Online Hate Speech Detection
- Implemented Logistic Regression from scratch for text classification of hateful and non-hateful posts.
- Applied PCA for dimensionality reduction and evaluated performance using KNN and Macro F1 scores.
- Explored and optimized multiple models to enhance classification accuracy.

Optimizing DBS Account Web Application
- Developed a web application using HTML, CSS, JavaScript, and Ruby on Rails, designed to streamline the account application process.
- Adopted Test-Driven Development (TDD) and Behaviour-Driven Development (BDD) methodologies to ensure high-quality code and user-focused features through iterative sprints.
- Implemented OCR technology for text extraction and integrated an OTP microservice
- Deployed the application using Google Cloud services

SaveSmart
- Developed an expense tracking application aimed at simplifying the expense management process with Flask
- Integrated NLP model to help users effectively identify their purchases into the respective categories

CO-CURRICULAR ACTIVITIES

Volleyball Club - Vice President and Girls Team Captain
SUTD Open House, Night Fiesta - Volunteer
SUTD Sports Week - Planning Committee
Asian Cross-Curricular Trip in Shanghai Jiao Tong University