ANUSHKA KURUP

Anushkak.2021@smu.edu.sg ● +65 83329265 ● https://www.linkedin.com/in/anushka-kurup-385a54266/

EDUCATION

SINGAPORE MANAGEMENT UNIVERSITY   **Aug 2021 – Jun 2025**
Bachelor of Information Systems   **(expected)**
- BA and DCS track
- SMU Toastmasters, Honorary General Secretary   **Mar 2023 – Jul 2024**

GLOBAL INDIAN INTERNATIONAL SCHOOL   **Jul 2019 – Jun 2021**
IB Diploma
- 40/45 points
- Dr. APJ Abdul Kalam Global Skills Scholarship

WORK EXPERIENCE

SMU   **Dec 2024 – Present**
Research Assistant
- Conducted research on 3D point cloud processing and implemented deep learning algorithms using Python and PyTorch.
- Worked with the ModelNet40 dataset to improve 3D object recognition and visualization.

NUHS   **Nov 2024 – Jan 2025**
Robotics Intern
- Mapped wards using Unity to create detailed internal layouts for real-time tracking and management.
- Developed internal mapping tools to track key points and assets within wards using Python, HTML, CSS, and JavaScript
- Explored Kafka to enable scalable, real-time data flow between robots and the backend, aiming to improve performance by 25%.
- Contributed to the porting modules using Vue.js and Java.

NUHS   **Jun 2024 – Aug 2024**
Software Development Intern
- Implemented test cases for Holo Sidecar, a platform facilitating integration with ultrasound and vein mapping applications using Microsoft HoloLens, utilising Mocha framework for testing.
- Developed a deployment pipeline for Holo Sidecar Unity Applications, streamlining deployment processes and reducing manual intervention by 50%.
- Utilized computer vision through probe tracking in ultrasound applications

A*STAR   **Jun 2023 – Aug 2023**
Research Intern
- Trained a healthcare chatbot for DUKE-NUS that involves sentence similarity using BERT Transformers and keyword extraction, resulting in expanded vocabulary recognition by 20%
- Developed a secure network attack detection mechanism using Hidden Markov Models with a detection accuracy of 98%

Wisely Wise   **Apr 2019 – Jun 2019**
Intern
- Created a rule-based chatbot in Python which led to an enhanced customer experience by 25% compared to baseline survey results
- Utilized Customer Engagement strategies to gather Voice of Customer insights, pinpoint pain points, and propose product enhancements, resulting in a 20% boost in customer satisfaction scores.

SPECIAL PROJECTS

AI-Driven Portfolio Optimisation (Final Year Project with Tiger Fund Management)   **Aug 2024– Nov 2024**
- Optimised portfolio allocation, combining AI predictions and financial models to improve investment decisions.
- Created a Risk Appetite Indicator (RAI) based on sentiment analysis of financial news and social media.
- Utilised predictive models like LSTM for ETF price forecasting to inform asset allocation decisions.
- Implemented weekly portfolio rebalancing using optimisation models such as Eigen and Black-Litterman.

Portfolio Analyzer Application (Goldman Sachs x SMU)   **Jan 2024 – May 2024**
- Developed a portfolio management application designed for investors to track and analyze their portfolios.
- Implemented real-time market data fetching via AlphaVantage API to provide up-to-date asset information.
- Created portfolio CRUD operations, authentication, performance metrics (CAGR, Sharpe Ratio), and portfolio comparison.
- Designed a dynamic and responsive frontend UI using React.js and deployed backend using Spring Boot with MySQL

SKILLS

Python (Flask, Django, Pandas, scikit-learn, PyTorch, TensorFlow), Java (Spring Boot), JavaScript (React, Vue.js), C, Unity, AWS (EC2, S3, DynamoDB, Kafka, ECR, CodeDeploy), SQL, MongoDB, RabbitMQ, Docker, Git, Jira, CI/CD, Tableau