Muhammad Nur Syafaat Bin Mohamed Saat

+65 9108 9864 • syafaatsaat@gmail.com • Singaporean • Website • LinkedIn

SUMMARY

Software Developer with strong foundations in C++ and Python, and hands-on experience across backend systems, data pipelines, and interactive simulations. Passionate about solving problems through efficient code and continuous learning.

SKILLS

Languages: Python (advanced), C++ (intermediate), SQL (intermediate), C#, JavaScript, HTML, CSS, Shell

Databases & Cloud: PostgreSQL, Microsoft Azure

Development Tools: Git/GitHub, Jupyter Notebook, Visual Studio Code

Game Engines: Unity Engine, Unreal Engine

Data Visualizations: Power BI, Tableau

Frameworks: Bootstrap

EXPERIENCES

Generation Singapore (In Partnership with Microsoft and Temasek Polytechnic) Jul 2024 - Oct 2024

Junior Data Engineer Program Trainee

- Developed a custom Python web scraper to extract and clean IMDb's Top 250 movie dataset with Python, storing results as structured CSV files.
- Designed and deployed 2 ETL pipelines in Python and SQL to automate data ingestion and transformation.
- Built Azure-based data platforms for storing and processing structured data, reducing manual handling steps.
- Created Power BI and Tableau dashboards to visualize data and support case-study insights.

Independent Projects & Self-Development Aug 2022 - Jun 2024

- Designed and deployed a personal portfolio website using HTML, CSS, and JS, hosted on GitHub Pages, to showcase 5+ software and data projects.
- Solved 200+ coding challenges on LeetCode, strengthening algorithms and problem-solving skills.
- Completed online courses in Python, SQL, and Web Development (Udemy, Exercism) and applied learnings through project builds.

Singapore Institute of Technology Jan 2022 - Jul 2022

Software Engineer Intern

- Built a C# data parser in Unity Engine to process and integrate 50K+ CSV location records into a 3D simulation.
- Developed interactive 2D/3D visualization features, allowing testers to monitor their performances in the simulation.
- Contributed to the development of a 3D virtual model based on a 21.7 km² area in Singapore using Python and CityEngine.
- Redesigned prototype menus to simplify navigation, improving usability based on internal tester feedback.
- Applied Git-based version control practices, enabling smoother collaboration and more efficient debugging.

EDUCATION

DigiPen Institute of Technology Singapore 2018 - 2022

Bachelor of Science in Computer Science & Game Design

Notable School Projects

- Wonder Cells (3D Platformer Puzzle Game)
  - Developed dynamic navigation mesh generation and AI pathfinding system in C++ using A* algorithm for dynamic enemy behaviour across 5+ levels in a 3D environment
- Access Modifier: Protected (2D Platformer PVP Shooter Game)
  - Developed sprite sheet rendering system, and AI (pathfinding, logic) system in C++ using A* algorithm for dynamic enemy behaviour across 3+ levels in a 2D environment