

RA LAN DO TU TRINH

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PROFESSIONAL SUMMARY

Data Science student and **NASA Space Apps Finalist** with a strong focus on **Software Engineering**. Core Founder and Infrastructure Lead for international startup projects. Proven ability to design scalable **Data Pipelines** and implement complex **Backend Logic** via SQL and C++. Highly motivated to bridge the gap between academic research and Professional Engineering.

EDUCATION

VNU-HCM University of Science <i>Bachelor of Data Science</i>	2024 – Present
	GPA: 3.72 / 4.0

TECHNICAL SKILLS

- Programming:** SQL (Complex Logic/CTEs), C/C++ (Structs & Pointers), JavaScript (ES6+), Python.
- Data & AI:** PyTorch, LSTM, GRU, Time-series Analysis, Explainable AI (SHAP/LIME).
- Tech Exposure:** Docker (Containerization), Azure Static Web Apps, Git, GitHub.
- Geospatial:** ArcGIS, QGIS, Satellite Remote Sensing, InSAR Data Processing.

PROJECTS & EXPERIENCE

Gratus (Stealth Mode Startup) <i>Core Founder & Data Infrastructure Lead (International Project)</i>	Jan 2025 – Present
• Architecting scalable data systems for an automated IoT thermal sensor system .	
• Developing robust Data Pipelines to process real-time streams using Python and SQL.	
• Implementing Clean Code principles and architecture to ensure high availability and scalability.	
Multi-modal Sinkhole Early Warning System <i>Lead Researcher (Independent)</i>	2024 – Present
• Developing a Multi-modal AI pipeline integrating satellite telemetry and hydrologic temporal data.	
• Implementing LSTM/GRU architectures for 72-hour and sub-seasonal hazard forecasting.	
• Utilizing XAI (SHAP/LIME) to ensure the model's physical consistency with geological principles.	
NASA Space Apps Challenge <i>Top 10 Finalist (Local Event) / Project: ContinuedFlow</i>	2024
• Built a weather intelligence platform by architecting real-time pipelines for NASA POWER APIs .	
• Optimized automated data normalization workflows to handle large-scale atmospheric telemetry.	
LMS Backend Logic Design <i>SQL Developer / Project: HackerRank x Dua Data</i>	2025
• Developed complex SQL logic using CTEs to automate evaluation for a 10-day coding challenge.	
• Transformed raw interaction logs into structured business insights and identified retention bottlenecks.	
Library Management System <i>C++ Developer / Honor-based Assignment</i>	2024
• Granted a final exam exemption due to outstanding C++ architecture.	
• Developed a CLI system using Structured Programming and persistent storage via File I/O .	

LEADERSHIP & ACTIVITIES

Mathematics Club VNU-HCMUS <i>Vice President</i>	2025 – Present
• Coordinating technical workshops and logic sessions for over 100+ students.	