Khanh Tra Nguyen Tran

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Education

St.Olaf College — Northfield, MN

Bachelor of Arts in Computer Science and Math, Concentration in Statistics and Data Science — *Expected May 2026*

- Computer Science GPA: 4.0/4.0, Math GPA: 4.0/4.0
- Relevant Coursework: Data Structures, Software Design, Analysis of Algorithms, Programming Languages, Theory of Computation, Algorithm For Decision Making, Linear Algebra, Discrete Maths, Abstract Algebra, Probability Theory, Modern Computational Maths, Statistics for Scientists, Data Visualization, Data Science

Trinity College Dublin — Dublin, Ireland

Exchange Student at School of Computer Science and Statistics — *2025*

- Relevant Coursework: Advanced Computer Networks, Compiler Design, Information Management (Database), Concurrent Systems and Operating Systems, Software Design Analysis, Artificial Intelligence

Skills

Languages: C/C++, C#, Python, R, Kotlin, HTML/CSS, Javascript, Bash, SQL, Ruby, XML, TypeScript, Go, Haskell, Prolog

Frameworks & Software: Android Studio, Visual Studio Code, Visual Studio, Git, Tableau, .NET, Microsoft SQL Server, Quarto, Rmarkdown, RStudio, RestfulAPI, Postman, MS Office, SQLite, JSON, shinyapp, p5.js, Gradle, MongoDB, ASP.NET Core, React.js

Experience

Undergraduate Researcher | *St.Olaf College (Northfield, MN)* — May 2023 – May 2024

- Developed the **Multi Agent Development App** to distribute goals equally and efficiently to the autonomous agents
- Implemented the **Resource-Conscious Algorithm** in *Python* to select the goal exhibiting resource costs closest to those achieved in the most optimized results attained through the baseline algorithms in 80% of test instances with approximately 60% of the available agents got assigned
- Publication: *Nguyen Tran, K. T., Young, J., & Kondrakunta, S. (2024). Initial Goal Allocation for Multi-agent Systems. The International FLAIRS Conference Proceedings, 37(1).*

Computer Science Lead Teaching Assistant | *St.Olaf College (Northfield, MN)* — Feb 2023 – Present

- Provided evaluation and feedback for students' assignments and exams as well as facilitating 2 help sessions per week to support 60+ students and answer questions about data structures, C++, Version Control, and algorithms
- Conducted training sessions at the beginning of each semester for 20+ Computer Science Teaching Assistants, providing comprehensive guidance on grading policies, and effective communication strategies with students

Technology Consulting Assistant | *St.Olaf College (Northfield, MN)* — Sep 2022 – Present

- Provided direct and virtual support for about 4000 students, professors, and staff on the St.Olaf College campus to resolve various technical issues
- Utilized the TeamDynamix platform to manage the workflow of solving +40 types of technical problems, ranging from printing, account authorization to classroom functionality

Projects

KITCHEN STORY | *Kotlin, Android Studio, XML, SQLite* — April 2024

- Extracted data from Spoonacular API in *JSON* format, integrated information of recipes onto the RecyclerView, which resulted in a dynamic and engaging user interface experience that shows recipes based on the inputted ingredients
- Developed database storing data for offline usage with *SQLite* and *Room*
- Managed the project using *GitHub*'s project board to organize issues, pull requests, and notes effectively for team collaboration

RESTAURANT MANAGEMENT SYSTEM | *C#, .NET, MS SQL Server* — July – August 2023

- Utilized *C#* and *Windows Forms* to construct a GUI system that streamlines the restaurant staff's booking processes, customer records management, and staff administration and requires a login procedure for access
- Stored information of customers, staff, and meal booking in the *Microsoft SQL Server* with real-time update