Nalen Rangarajan

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EDUCATION

Kansas State University **Expected May 2026**
Pursuing a B.S. in Computer Science and Math; 4.0 GPA; *Manhattan, KS*

- Relevant coursework: Computer Architecture and Operations, Intro to Algorithm Analysis, Software Architecture and Design, Database System Concepts, Object-Oriented Programming, Data and Programming Structures, C Language Lab, Logical Foundations of Programming, Public Speaking
- Presented research on a formally verified reasoner during a poster session at the 2025 Joint Mathematics Meetings, a premier mathematics conference in Seattle, WA
- Selected to design software for an interdisciplinary Cube Satellite project
- Selected to participate in an exclusive and demanding two-semester mathematics course, which seamlessly integrated Linear Algebra, Ordinary Differential Equations, and Multivariable Calculus
- Recipient of multiple merit-based scholarships including the Wabash Cannonball Scholarship and Karl Stromberg Memorial Scholarship
- Study Abroad to Tokyo and Kyoto, Japan (Summer, 2023)

WORK EXPERIENCE

Garmin **January 2025 – Present**
Software Engineering Intern *Manhattan and Olathe, KS*

- Worked with a team to develop projects in the Aviation segment

K-State Computer Science Department **December 2023 – Present**
Undergraduate Research Assistant *Manhattan, KS*

- Helped develop a formally verified EL++ knowledge graphs reasoner using Coq and Ocaml
- Used linear programming to determine the satisfiability of rational predicates
- Contributed to work resulting in a paper entitled VEL: A Formally Verified EL++ Reasoner and a submission to AAAI 2025

K-State Computer Science Department **August 2024 – December 2024**
Undergraduate Teaching Assistant *Manhattan, KS*

- Assisted in two lab sections and attended meetings as a teaching assistant for a data structures course
- Explained concepts through multiple lenses to assist struggling students with different learning styles

PERSONAL PROJECTS

- **Video Game Database** – Developed an interactive video game database application using SQL and C#
- **Chat Application** – Developed an application for messaging utilizing C#
- **Build Your Bowl** – Developed a Burrito Bowl Website using Razor Pages and POS application using WPF
- **Chore Simulator** – Developed the logic for chore-based minigames for a time-constrained group project

SKILLS & ACHIEVEMENTS

- **Programming Languages:** C#, Coq, Ocaml, C, Java, SQL, Python, HTML
- **Math:** Complex Analysis, Data and Networks, Calculus I, II, and III, Linear Algebra, Discrete Math, Differential Equations, Statistics, Algebraic Systems
- **Software and Tools:** Visual Studio, WPF, Windows Forms, Razor Pages, UML, Git, GitHub, GitLab, Microsoft Suite, MSSQL, Unity, AWS, Visual Studio Code