

## Nicole Tan

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### EDUCATION

North Carolina State University | Raleigh, NC

B.S. in Computer Science, GPA: 3.5

May 2027

**Relevant Coursework:** Discrete Mathematics, Introduction to Java, C and Software Tools, Data Structures and Algorithms, Multivariable Calculus, Software Development Fundamentals, Statistics and Probability, Website Development

### PROJECTS

FAFSA Friends | PearlHacks

Feb 2025

- Built a mobile app that simplifies the FAFSA process for first-gen and low-income students using **React Native** and **Streamlit**.
- Integrated **Google Cloud Vision** to extract data from financial documents and used **Firestore** for secure authentication and data handling.
- Collaborated with a team of four to design and build the app in under 24 hours at PearlHacks

EcoQuest | Hack NC State

Feb 2025

- EcoQuest is designed to help users plan the most efficient routes by combining walking, biking, and bus travel to promote sustainable and accessible transportation.
- Created an iOS app in **Swift** using **MapKit** and **CoreLocation** for real-time location tracking and route visualization.
- Worked with 3 other team members to create a user-friendly interface during a 24-hour hackathon, using **Figma** for prototyping.

Project Secure | HackNC

Nov 2024

- Built a discreet, customizable safety app that lets users quietly get help by appearing as a harmless food ordering service app.
- Designed the **UI** in **Figma** to look like a food ordering app with a toggle button to reveal hidden help options.
- Worked in a team of four to develop and test a **Java command-line** simulation for core features like silent emergency signaling

### PROFESSIONAL EXPERIENCE

CS Instructor | The Engineering Place | Raleigh, NC

June 2025 - Present

- Taught hands-on lessons in **Python**, **AI**, and **cybersecurity** to over 200 middle and high school students across multiple camps.
- Designed and led 50+ interactive activities covering **network security**, **machine learning**, and **algorithmic problem-solving**.
- Created a collaborative and inclusive learning environment, with 90% of students reporting increased confidence in computer science topics in post-camp surveys.

Undergraduate Research Assistant | NC State University | Raleigh, NC

May 2025 - Present

- Developed and tested 20+ **Bash scripts** using **sed**, **grep**, and **awk** to automate C code transformations for **compiler fuzzing**.
- Applied regular expressions to restructure code patterns, improving test coverage and uncovering edge-case compiler bugs.
- Gained experience in low-level code analysis, compiler internals, and automated testing workflows to identify edge-case failures.

Designer | Agromeck | Raleigh, NC

Sept 2023 - Present

- Helped produce the NC State yearbook that generated over \$2,000 in sales through campus and online distribution.
- Designed visually polished yearbook spreads using **Illustrator** and **Photoshop** for a 1,000+ page award-winning publication.
- Contributed to a spread that earned an **Honorable Mention** in a national collegiate media competition.

Pre-Apprentice | Bosch Rexroth | Charlotte, NC

Jun 2022 - Jul 2022

- Collaborated with 3 co-interns to design and prototype a foldable, portable table to improve an engineer's daily workflow.
- Designed an onboarding presentation highlighting key experiences and lessons learned, now used to guide future Bosch interns.
- Created a custom tool organizer adopted by 100+ assembly line employees, boosting workspace efficiency.

### LEADERSHIP EXPERIENCE

Vice President | Women in Computer Science (WiCS) | NC State

Sept 2023 - Present

- Secured partnerships with 20 corporate sponsors to enhance WiCS event offerings and student career connections.
- Hosted reception with 20+ industry reps and 60+ students to boost engagement and networking.
- Organized career fairs and networking events that connected 100+ members with industry professionals and job opportunities.

### TECHNICAL SKILLS

- **Languages:** Java, Python, C, JavaScript, SQL, R, HTML/CSS, Bash, Kotlin
- **Frameworks/Tools:** React, Firebase, JUnit, Jenkins, Docker, GitHub, Figma, Android Studio, VS Code, Eclipse, IntelliJ
- **Systems:** Linux, Windows