

# Nicole Cindy Lucas

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## EDUCATION

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**Washington University in St. Louis** | GPA 3.48/4.00

May 2025

*Bachelor's of Science in Computer Science, Minor: Human-Computer Interaction*

• **Honors:** Annika Rodriguez Scholar (1% acceptance rate, full-tuition scholarship for academics, leadership, service)

**Hong Kong University of Science and Technology**

Spring 2024

• **Relevant Coursework:** Parallel & Concurrent Programming, Object Oriented Software Development, Data Science in Python, Web Development, Mobile Application Development, Video Game Programming, UX Research Methods for Design

## WORK EXPERIENCE

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**InvestSTL** | St. Louis, MO

Jun 2023 – Aug 2023

*Data Analyst*

- Managed a real-time data-driven map platform tracking 50+ St. Louis neighborhoods, aggregating data on local associations, development groups, and community organizations
- Delivered heuristic evaluations with 15+ actionable UX recommendations, leading to a 20% boost in beta user satisfaction across desktop and mobile platforms
- Partnered with 30+ neighborhood organization leaders to audit and update platform content, synthesize beta testing insights, and align feature development with community needs

**Engineering Undergraduate Student Services** | St. Louis, MO

Aug 2022 – May 2025

*Calculus I, III Tutor*

- Led weekly tutoring sessions for engineering undergraduate students, specializing in exam preparation and core calculus concepts
- Provided individualized academic support, helping 4+ students per semester to strengthen problem-solving skills and boost performance in foundational math courses

## LEADERSHIP EXPERIENCE

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**Society of Hispanic Professional Engineers** | St. Louis, MO

Jan 2023 – May 2025

*President*

- Re-established the SHPE chapter post-hiatus, recruiting 100+ members from the ground up and revitalizing campus presence through strategic outreach and programming
- Manage a \$17.4K annual budget and oversee planning and logistics for National Convention, supporting travel, lodging, and registration for 21 members
- Represented WashU SHPE at the National Institute for Leadership Advancement and National Convention, collaborating with chapter presidents and national leadership to improve programming, increase engagement, and secure mentorships and sponsorships

**Washington University Robotics Team** | St. Louis, MO

Dec 2022 – May 2023

*Arm Team Member, Design Team Member*

- Designed, wired, and programmed a 4-DOF robotic arm claw and integrated computer vision for autonomous manipulation
- Collaborated with software sub-team to implement machine learning algorithms for optimizing servo control precision
- Built and programmed Arduino-based systems as part of a 6-member team, contributing to diverse robotics projects
- Developed detailed SolidWorks CAD models to prototype and assemble a custom chassis for ball-launching robot

## PROJECTS

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**File System Simulator** (C++)

- Designed and developed a modular software simulation of a file system, leveraging object-oriented programming principles to ensure scalability and maintainable code structure
- Implemented an intuitive command-line interface, enabling efficient execution of file management commands such as creation, deletion, copying, and renaming, improving user interaction and system usability

**Spot that Tune** (Swift, SQLite, Spotify API)

- Developed a music trivia mobile app game using Spotify's API to challenge users' music recognition skills across various genres
- Designing and implementing core features including a real-time multiplayer mode, an SQLite-backend database for user data management, a competitive leaderboard, and a modular architecture adhering to protocol-oriented design principles

## TECHNICAL SKILLS

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**Programming Languages:** Java, Python, C++, TypeScript, HTML/CSS, JavaScript, AVR assembly, Arduino C, Swift, PHP, SQL, Swift

**Tools:** Figma, Git, Pandas, AWS, Microsoft Excel, Microsoft Word, Microsoft PowerPoint, VSCode, IntelliJ, Clion, Eclipse, MATLAB, JASP, SolidWorks, XCode, Unity