Tanvi Ranade

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EDUCATION

Johns Hopkins University

Bachelor of Science | GPA: 4.00

Baltimore, MD

Expected May 2026

- Majors: Computer Science and Biomedical Engineering
- Relevant Coursework: Data Structures (Java), Intermediate Programming (C/C++, Course Assistant), Full-Stack JavaScript, Linear Algebra, Probability and Statistics, Differential Equations, Calculus III

Orlando Science Middle/High Charter School

High School Diploma | GPA: 4.00 (Weighted: 5.49) | Salutatorian

Orlando, FL May 2022

SKILLS

- Proficiency in Python, Java, C, C++, and Arduino for projects (e.g. graphing calculator, 15 puzzle solver, regex matching) and research (e.g. asteroid orbit determination at the Summer Science Program, sensor current draw experiments)
- Familiarity with JavaScript, TypeScript, HTML, and CSS for web development (e.g. sticky notes software, quiz application, custom websites for six non-profits through Coding for Charity, comic generator using OpenAI's API)
- Experience with Git/GitHub for version control, IDEs Visual Studio Code and IntelliJ IDEA, and Linux
- Expertise in computer-aided design for modeling robots, prototyping, operating machinery (e.g. milling machine, laser cutter, CNC, 3-D printer), and documentation/testing (e.g. writing unit tests, measuring performance)
- Mastery in using Google Workspace, Microsoft Office Suite, and Adobe Creative Suite

EXPERIENCE

WOMEN IN COMPUTER SCIENCE AT JHU

Baltimore, MD

Events Chair

August 2023 - Present

- Organize professional development and social events with responsibilities of communicating with administrators, board/general members, and sponsors; brainstorming, planning, and hosting events including weekly general body meetings; securing event spaces; reaching out to potential collaborators; and managing club calendar
- Partner with companies (e.g. Google, Bloomberg) and on-campus organizations (e.g. ACM) for internship/research panels and career-oriented talks with 80+ attendees

CURVEASSURE (STARTUP)

Baltimore, MD

Research and Development Engineering Intern

June 2023 - Present

- Develop pipelines to handle real-time streaming data from six Bluetooth-connected devices; leverage Python scripting within Blender to visually represent movements of wearable spine and limb sensors based on incoming data; demo platform presented at two showcases to 400+ people
- Analyze spinal institution datasets to classify essential information by frequency for future company use and author informative summary documents for reference; design visually appealing data displays for clinicians and convert to JavaScript scripts to showcase on company website

CENTER FOR BIOENGINEERING INNOVATION AND DESIGN

Baltimore, MD

Undergraduate Design Team Member

January 2023 - Present

- Address problem of clogging catheters in Interventional Radiology and biased sedation scores in the Pediatric Intensive Care Unit with teams of undergraduates, faculty, and clinicians; research and ideate solutions based on precedents; shadow at the Johns Hopkins Hospital to understand workflow, observe patients, and interview 10+ healthcare professionals
- Analyzed large databases, conducted studies through IRB, and documented engineering process; secured \$100K through prestigious Johns Hopkins Discovery Award and raised an additional \$3K from various awards and grants

FIRST ROBOTICS COMPETITION & FIRST TECH CHALLENGE

Orlando, FL

Co-Captain

September 2018 - May 2022

- Modeled design on Autodesk Inventor, created custom parts, and built robots to compete; mentored rookie team members throughout design process, hosted robot demos to promote STEM for K-12 students, and developed a novel fidget device for children with ASD/ADHD
- Fundraised >\$10K and supervised team budget; gave presentations, designed engineering portfolio, and organized meetings
- Won prestigious Chairman's and Engineering Inspiration awards (regional), and Think and Inspire awards (district); honored as FIRST Dean's List Semifinalist; two-time FIRST Championship (worldwide) qualifier