

Ohm Patel

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EDUCATION

North Carolina State University

Bachelor of Science in Computer Engineering - 4.0 GPA; Dean's List

Expected 2026

Raleigh, NC

SKILLS

Languages: Python, C, JavaScript, Assembly, C++, MATLAB, SQL.

Technical Skills: MS Office, Git, VS Code, React, AWS, Agile Development, Embedded Systems.

Soft Skills: Problem Solver, Detail Oriented, Quick Learner, Team Player, Good Communicator, Passionate.

RELEVANT COURSEWORK

Fundamentals of Logic Design

North Carolina State University

Raleigh, NC

- Designed and optimized combinational and sequential circuits using Boolean algebra, Karnaugh maps, flip-flops, finite state machines, and Verilog HDL.
- Developed datapath architectures, memory hierarchies, and cache systems for digital hardware design.
- Utilized CAD tools for simulation, logic synthesis, state assignment, and technology mapping to create efficient and scalable hardware solutions.

Computer Systems Programming

North Carolina State University

Raleigh, NC

- Programmed in C with a focus on memory management, data structures (arrays, linked lists, trees, and hash tables), and system-level programming.
- Translated high-level C code into assembly language to understand low-level machine operations and optimization.
- Gained foundational skills in data abstraction and algorithm design for efficient problem-solving.

EXPERIENCE

Robotics Instructor

Apr 2025 – Present

Zebra Robotics

Raleigh, NC

- Teach K–12 students the fundamentals of robotics using LEGO SPIKE Prime, fostering hands-on problem-solving and engineering thinking.
- Develop and adapt lesson plans to meet students' learning levels, ensuring engagement and conceptual understanding of core STEM topics.
- Coach and mentor students for competitive robotics challenges, guiding them through iterative design, programming logic, and teamwork.

Lead Software Engineer

Apr 2025 – Present

IEEE Student Branch NC State University

Raleigh, NC

- Built internal tools and automations for managing logistics, reducing manual administrative workload by 50%.
- Collaborated with executive board to implement a modular content system, allowing easy updates to site content.
- Integrated dynamic event registration and announcement features using Firebase and serverless functions, improving member engagement.

PROJECTS

Productify | Python, Node.js, JavaScript, SQL, Git

May 2024 – Aug 2024

- Collaborated on developing Productify, a full-stack tool to enhance productivity and balance for college students.
- Built a scalable back end with SQL, Python, and Node.js to manage user accounts and productivity tools.
- Utilized Git for version control, with plans to integrate generative AI for personalized user experiences.

Raspberry Pi Personal VPN | Raspberry Pi, WireGuard, Linux, IP routing

Aug 2024 – Present

- Configured a personal VPN on Raspberry Pi using OpenVPN for secure, remote access to home network infrastructure.
- Built and customized IP routing, firewall rules, and encryption protocols to ensure safe and reliable data transmission across multiple devices.
- Enhanced network security and accessibility, enabling seamless remote work and private browsing connection.