Nathan P. Pothuganti

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Objective

Freshman computer engineering student seeking an internship in software development starting May 2025. Has extensive teamwork and leadership skills, directing the marching band and math honor society. Adept in learning new tools and familiarized with C++, Python, and Java through various projects and classes.

Education

Georgia Institute of Technology | Atlanta, GA   *August 2024 – Present*
Bachelor of Science in Computer Engineering   *Expected Graduation, May 2027*
Concentration in Systems & Architecture and Computing Hardware & Emerging Architectures

Broward College (Dual Enrollment) | Fort Lauderdale, Florida   *August 2021 – May 2024*
95 Credit Hours, GPA 4.0 / 4.0; Associate of Arts Degree with Highest Honors

Pembroke Pines Charter High School | Pembroke Pines, Florida   *August 2020 – May 2024*
GPA: 3.98 / 4.0
Honors & Awards: 4x VEX Worlds Championship Qualification, Vex Worlds Student Ambassador, Senior Mathematics Award

Skills

- Java (intermediate), Python (novice), C++ (novice), Rhino 3D & Grasshopper (CAD), GitHub, Arduino, Feather ESP32, UFACTORY xArm (collaborative & industrial robot control), Processing

Programming Project

Utilizing Collaborative Robot for Art & Design   *June 2023 - July 2023*
- Programmed using Python xArm SDK and Processing, creating customizable typing interface to utilize the robot for large-scale poster design and long-exposure light photography. Created robot end effectors to implement both design ideas.
- Project now utilized in student lab tours by the Florida International University Robotics and Digital Fabrication lab

Experience

Pines Charter Marching Band | *Drum Major Technician*   *June 2024 – August 2024*
- Trained new 2 drum majors how to clearly command a large group and leadership strategies
- Formerly performed in the program as a Drum Major and Woodwind Captain, leading to first straight-superior ranking

Florida International University | Miami, FL | *Robotics & Digital Fabrication Lab / Research Assistant*   *June 2023 - August 2023*
- Developed programs for a collaborative robot arm 3D-modeled (CAD & Prusa) 4 robot end-effectors utilized in 2 trials of an $750k NSF-funded research study (Research on Emerging Technologies for Teaching and Learning)
- Gained basic knowledge of microcontrollers (Arduino and ESP32)

Code Ninjas | Plantation, FL| *Code Tutor & Summer Camp Lead Instructor*   *June 2022 - Dec 2022*
- Created and taught 2 curriculums in Lego SPIKE Robotics & Scratch programming still used by the company
- Communicated student performance to parents, increasing program retention and received recognition from manager

Activities

VEX Robotics | *Lead Designer and Programmer*   *August 2020 – May 2024*
- Lead designer in engineering notebook, winning the Judges Award at the World Championship, and the Engineering Design Award (2023) and Innovation Award (2024) at the Florida state championships
- Programmed in C++, utilizing sensor input from motor encoders, sonar and inertial sensors, and utilized control theory (PID & Odometry) to win the Florida state championship Programming Award (2022)

Math National Honor Society (Mu Alpha Theta) | *President*   *August 2020 – May 2024*
- Coordinated math events and competitions for 100 members, raising over $1000 to sponsor first fieldtrip to NASA
- Tutored and led tutoring sessions for over 100 hours

Relevant Coursework

- **Data Structures & Algorithms:** Analysis and design of data structures and algorithms to achieve efficient data manipulation
- **Objects and Design:** Design methodology for large-scale programming in teams; Utilize industry tools and project management techniques – Android Studio, Agile (Scrum)