

# Ram Reddy

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## EDUCATION

### University of Illinois at Urbana-Champaign

*Bachelor of Science in Computer Engineering*

**Relevant work:** Computer Systems & Programming, Discrete Mathematics, Intro to Differential Equations

**Clubs:** Illini Electric Motorsports, Sigarch, UIUC Association for Computing Machinery

Graduation Date: 2026

GPA: 4.0/4.0

### Thomas Jefferson High School for Science & Technology

*Advanced Studies Diploma*

**Relevant work:** Machine Learning, Artificial Intelligence, Computer Vision, Analog + Digital Electronics, Automation Robotics, Data Structures and Algorithms

Graduated: 2023

GPA 4.45/4.0

## EXPERIENCE

### Illini Electric Motorsports

*Live Telemetry Team Responsible Engineer*

August 2023 - Present  
Urbana-Champaign, Illinois

- Designed live telemetry solution for formula race car that went through multiple design reviews
- Utilized controller area network bus to retrieve data from car and ESP32 microcontrollers to control transceivers
- Tested for electromagnetic interference on RF signals from XBee Pro 900HPs

### Dartmouth Hitchcock Medical Center - Digital Pathology Intern and Mentor

April 2021-August 2023

*Immunofluorescence-Supervised Graph Neural Networks for Immune Cell Prediction*

Published Paper: [PMLR Link](#) GeoMedIA Website: [GeoMedIA Workshop](#)

- Primary author for published paper in PMLR and attended international GeoMedIA Workshop in Amsterdam, Netherlands on November 18, 2022. Applied and Received €3000 grant
- Worked alongside Doctors at Dartmouth and Harvard University to develop an immune cell localization tool for whole slide images
- Implemented Detectron2 library and convolutional and graph neural network models

### Thomas Jefferson Computer Systems Lab

*System Administrator and Cluster Co-Lead*

Alexandria, VA  
June 2021 - June 2023

- Managed, fixed and upgraded the school's cluster, which many classes in the school used. Used VMs, SSH, Ansible and Grafana
- Mentored 4 junior system administrators to support future operations

### Cloud Computing Club

*Webmaster*

Alexandria, VA  
August 2021 - June 2023

- Lectured weekly on cloud computing and AWS concepts like high performance computing and edge computing
- Developed and maintained club website

### Potentia Robotics

*Software Developer and Control Systems Lead*

Alexandria, VA  
July 2020 - June 2022

- Implemented PID algorithm, developed the control algorithm using threads and socket connections for communication
- Developed and maintained the website using reactJS and online web hosting
- Taught Python for 30+ students and helped earn \$10,00 in funds

## ACHIEVEMENTS

- Won National Cyber Scholarship cash prize \$500 in 2023
- Naval Horizons Essay contest winner in June 2021 and 2023
- Invited panelist at USPTO's Invention-Con Youth Day Event in July 2022
- Congressional App Challenge Project Mobile application first place winner in January 2022
- Hack TJ 9.0 Best Social Impact Hack in April 2022 using React, Rest, MongoDB
- National ACSL participant in May 2021

## SKILLS

Python, Java, C++, C, JavaScript, AI, Computer Vision, HTML, CSS, React, SQLite, MATLAB, Git, Django, Flask, IoT, RPA, MongoDB, PostgreSQL, PyTorch, TensorFlow, Arduino, Raspberry Pi, RF, PCB, OpenCV, Ansible, Virtualbox, Vagrant, Fusion 360, Tinkercad, Webots, Onshape, Grafana, Kubernetes, Docker, Rest API, AWS, Swift