Teja Koduru

571-489-9066 | tkoduru@umich.edu | linkedin.com/in/tskoduru | github.com/TSKoduru

EDUCATION

University of Michigan — Ann Arbor, MI
B.S in Aerospace Engineering, Minor in Computer Science and Electrical Engineering — *Expected May 2026*

Thomas Jefferson High School for Science and Technology — Alexandria, VA
U.S Presidential Scholar '23, SAT: 1600, ACT: 36

WORK EXPERIENCE

Software Developer — August 2021 – Present
MITRE Corporation — *Mclean, VA*

- Developed real-time path-planning algorithms for micro-UAVs, configured $100k positioning system, supported 10+ MITRE UAV projects
- Developed VR simulation of shoot-houses to help special operators train for missions, worked together with Navy SEALs representatives, presented to 50+ stakeholders including VP of MITRE.
- Used OCR and sentiment analysis models to identify disinformation campaigns on social media, integrated software into MITRE's playbook for disinformation response

Research Software Engineer - Lyme Studies Unit — December 2020 – September 2021
National Institutes of Health — *Bethesda, MD*

- Created world's first dataset of erythema migrans (EM) rash images, crucial to the diagnosis of Lyme disease
- Produced a phone application with TensorFlow Lite and Kotlin to diagnose Lyme disease with 90% accuracy
- Led testing of model, by screening patients and building an improved patient UI with React
- Published 14-page research paper summarizing results and areas for future work

UAS Fleet Management Researcher — August 2023 - Present
University of Michigan — *Ann Arbor, MI*

- Explored methods to utilize a UAS fleet to conduct simultaneous exploration and exploitation
- Modeled environmental uncertainties as a k-armed bandits problem
- Utilized Thompson sampling to order "solve" said problem by constructing an ideal dispatch schedule
- Contributed to a 20 page research paper published to the AIAA conference

ADDITONAL EXPERIENCES

MASA - Avionics and Software Team | *Python, C++* — August 2023 – Present

- Building a two-stage liquid engine rocket to set a new world altitude record for college rocketry
- Developing custom PCBs using Altium Designer to monitor flight parameters including velocity, heading, and barometric pressure

OneVote | *React, OpenAI, HTML/CSS* — November 2023

- Developed an AI chatbot tool that allows users to as questions about political candidates, recent news, and more.
- Integrated a voter page to display nearby polling stations, upcoming elections, and other information
- Submitted to MHacks Hackathon, winner of Social Impact track

TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, MatLab, LaTeX
Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, Matplotlib, TensorFlow, Keras, OpenCV

RELEVANT COURSEWORK

Computer Science: Data Structures and Algorithms, Artifical Intelligence, Machine Learning, Computer Vision
Mathematics: Differential Equations, Discrete Math, Linear Algebra, Multivariable & Vector Calculus