

# VIKRAM V. RAGHU

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## EDUCATION & CERTIFICATIONS

University of Michigan, Ann Arbor, MI

Aug 2021-May 2025

Bachelor of Science in Engineering – Computer Science

GPA: 4.00

\* Dean's List      \* James B. Angell Scholar      \* Honors – Engineering Global Leadership

Courses: Data Structures and Algorithms, Machine Learning, Foundations of Computer Science, Linear Algebra, Computer Organization, Programming Language Theory, Computer Security.

Japan Center for Michigan Universities, Hikone, Shiga, Japan

June 2023-Aug 2023

\* Intensive Japanese Language Study Abroad Program

Thomas Jefferson High School for Science and Technology, Alexandria, VA

Aug 2017-June 2021

\* National Merit Finalist

Certifications: AWS Cloud Practitioner (CLF-C01)

Aug 2022

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## EXPERIENCE

UNIVERSITY OF MICHIGAN, Ann Arbor, MI

August 2023-Present

Instructional Aide for EECS 376 (Foundations of Computer Science)

- Facilitate weekly discussion sections, hold office hours, grade and write homework/exam problems for over 700 undergraduate students. (<https://eeecs376.github.io/notes/>)
- Course topics: Algorithm design (divide and conquer, dynamic programming), computability (finite automata, Turing Machines, Turing reductions), complexity (P, NP, NP-Hard, heuristics), cryptography (Diffie-Helman, RSA)

PRINCIPAL FINANCIAL GROUP, Des Moines, IA

May 2022-Present

Software Engineer (part-time)

Sep 2022-Present

- Integrated SonarQube code coverage and code quality scanning on deployments with GitHub Actions
- Developed and deployed ReactJS WebApp to allow insurance agents to remotely trigger document generation
- Participated in full Agile Development Lifecycle including daily standups and production deployment

Software Engineering Intern

May 2022-Sep 2022

- Built AWS serverless infrastructure for new document generation pipeline using Terraform
- Migrated CI/CD Pipelines from Azure DevOps to GitHub Actions
- Created bash scripts for local deployment of terraform infrastructure to AWS that reduced setup time of new AWS Sandbox accounts by 50%
- Led Agile development simulations with other interns

[MICHIGAN ROBOTIC SUBMARINE, Ann Arbor, MI](#)

Sep 2021-Present

Software Team Member

- Integrated ZED2 AI Camera with autonomous navigation algorithms for improved frame rate
- Upgraded Machine Learning model from Yolov3 to Yolov5 for Computer Vision in navigation algorithms
- Designed custom flight controller and implemented ROS simulations for remote testing - C++ and Python

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## PROJECTS

Principal Intern Code Jam

June 2022

- Architected and developed automated data processing pipeline for gathering Environmental, Social and Governance certification information on corporate real estate holdings

High School Senior Project: WATER (Window Automated Temperature Regulator)

Aug 2020-May 2021

- Developed a prototype automated window frame to regulate temperature to minimize AC usage

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## SKILLS

**Languages:** Python, C++, C, Julia, Java, JavaScript, HTML, CSS, OCaml, Rust  
**Frameworks:** Scikit Learn, TensorFlow, Keras, Django, NodeJS, Handlebars, Express  
**Tools:** Git, Terraform, OpenCV, Android Studio, ROS, Yolo, GitHub Actions  
**Platforms:** Linux, Windows, Arduino, AWS, Azure  
**Spoken Languages:** English (Fluent), Japanese (Intermediate), Tamil (Basic)