Rithvik Bhogavilli

240.498.9761 | rbhogavilli@gmail.com | Potomac, MD

EDUCATION

University of Illinois, Urbana-Champaign May 2025
Computer Engineering Urbana, IL
Coursework : Calc 3, Intro to CS I, Diff Eq, Physics E&M, Intro to Computing/Electronics

Poolesville High School June 2021
Science, Math, Computer Science Magnet Program Poolesville, MD
Coursework : Comp Arch, Data Structures, Analysis of Algo, Robotics, Networking, Linear Algebra

EXPERIENCE

University of Illinois CyberGIS Center Fall 2021
Researcher Urbana, IL
- Developed Ansible playbooks for Docker image version control and virtual machine management.
- Documented source code for hydrological data optimized Jupyter Notebooks.

University of Maryland MIND Lab Summer 2020
Summer Intern College Park, MD
- Developed user interface in JavaScript for tracing spread of COVID-19 using Mapbox and ArcGIS.
- Experimented with algorithms for removing noise from GPS data using Turf.js and road fitting APIs.

Efabless.com, Open Circuit Design Summer 2020
Summer Intern
- Optimized the performance of Magic, an Electronic Design Automation tool for VLSI design.
- Implemented efficient data structures and hashing algorithms and quantified performance with Linux perf.

Dreamport, US Cyber Command Summer 2019
Summer Intern Columbia, MD
- Developed and optimized machine learning algorithms for facial recognition with PyTorch.
- Built a private cloud using VMWare for use by researchers. Maintained a Linux and Windows lab.

PROJECTS

FIRST Robotics Competition Team 4099, Controls Lead
- Designed and programmed robot subsystems teleoperation and autonomous movement in Kotlin.
- Developed custom path following using PID and motion profiling for a swerve drivetrain.

FIRST Tech Challenge Team 13100, Captain
- Managed a team of 10, designed and built a robot in OnShape for competitions.
- Implemented odometry and programmed path planning for autonomous routines in Java.

Los Altos Hacks from city import pandemic, Winner
- Designed 3D web application to correlate COVID statistics with demographics data in Mapbox and Turf.js.
- Parsed public data from Washington DC and calculated Pearsons r for correlation strength.

Autonomous Blimp Project
- Developed custom printed circuit board in EagleCAD for autonomous blimp for magnet sophomores.

SKILLS

Languages : Python, Java, Kotlin, JavaScript, Rust, C, C++, Arduino, Bash
Tools : Linux, Git, EagleCAD, React, NodeJS, Flask, Electron, OpenCV, PyTorch, Stella, ArcGIS