

Rohit Rangaraj

Technophile, Robotist and Linux Enthusiast
rrohit@vt.edu

EDUCATION

VIRGINIA TECH

B.S. IN MACHINE LEARNING
Dept. of Computer Engineering
August 2022 - May 2026
Blacksburg, VA, United States

SUGUNA PIP SCHOOL

GRADE 11 - 12 (CBSE)
Grad. Mar 2022 | Coimbatore, India

SSVM WORLD SCHOOL

GRADE 1 - 10 (CBSE)
Grad. Mar 2020 | Coimbatore, India

SKILLS

PROGRAMMING

Fluent

- Python • React • C++ • Android
- Bash • Vim • \LaTeX

Skilled

- Java • JavaScript • C • C#
- CSS • HTML5 • SQL

Familiar

- Haskell • React Native • Swift

MACHINE LEARNING

- TensorFlow • PyTorch • Keras
- NumPy • Pandas • SciKitLearn

ROBOTICS

Areas of Work

- Monocular Depth Prediction
- Simultaneous Localization and Mapping
- Computer Vision

Ecosystems

- ROS • Intel RealSense • Arduino
- Raspberry Pi • Tetrix • Vex
- Modern Robotics • EV3 • NXT

IOT

- NodeMCU • ESP8266 • ESP32

GAME DEVELOPMENT

- Unity3D • Unreal Engine

3D MODELLING

- Fusion 360 • Creo (Assembly)
- AutoCAD • Blender

LINKS

Personal Website:// [Rohit-Rangaraj](#)

Github:// [Rohit-Rangaraj](#)

Github:// [Revno-Official](#)

Mobile (US) : +1 (540) 824-8582

Mobile (India) : +91 8610909439

EXPERIENCE

FULL STACK DEVELOPMENT INTERN @ GUVI GEEK NETWORKS

May 2021 - August 2021

- Helped develop a learning platform, **HackerKid**, to teach kids math, coding, and programming concepts in a gamified and fun way
- Over 100,000 users actively learning on the platform

RESEARCH

MONOCULAR DEPTH PREDICTIVE SLAM ALGORITHMS IN LOW RESOLUTION DATASETS

- A novel contribution of **Deep Learning Neural Networks** to predict depth from **low resolution images** as input to **Simultaneous Localization and Mapping** algorithms to improve the efficiency in edge cases and to cut down the cost of equipment involved in SLAM applications like Autonomous Vehicles
- Mentored by Emily Sheetz from the **University of Michigan, Ann Arbor**
- In the process of submission to **IEEE CVPR Conference 2023**

MULTI-VARIATE ANALYSIS OF THE MEME STOCK PHENOMENA

- A **multi-variate statistical analysis** of hedge fund asset suppression and community response to "meme stocks" (\$AMC and \$GME) with **Machine Learning**
- Mentored by Samuel Showalter from the **University of California, Irvine**
- **Final Paper**

COURSEWORK

VIRGINIA TECH

- CS 1114: Introduction to Software Design
- ENGE 1215: Foundations of Engineering
- ENGR 1014: Engineering Research Seminar
- MATH 1225: Calculus of a Single Variable
- CHEM 1035: General Chemistry
- CHEM 1045: General Chemistry Laboratory
- ENGL 1105: First-Year Writing

ONLINE

- HarvardX CS50: Introduction to Computer Science
- UMich's ROB 530: Mobile Robotics: Methods & Algorithms (Graduate course)
- Princeton's Algorithms
- MITx 11.126x: Introduction to Game Design
- CMU's 15-112: Fundamentals of Programming and Computer Science
- Andrew Ng's Deep Learning Specialization

HONORS

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| 2019 | International | 3rd Prize , World Adolescent Robot Contest, Chongqing, China |
| 2018 | National | Leader of Finalist Team, FIRST Tech Challenge Relic Recovery |
| 2017 | National | Finalist Team, FIRST Tech Challenge Velocity Vortex |
| 2019 | School | President , Science Club for 5 years |
| 2018 | Karate | Brown Grade Belt Holder |