ANANTA SRIKAR PURANAM

Bengaluru, India · srikarananta01@vt.edu · +91 9740267143 · srikar.tech · GitHub

EDUCATION

Virginia Tech, Blacksburg, Virgnia, United States — Aug 2023 - June 2025 *(Expected)*
Master of Science in Computer Engineering
Current interests: Linux Kernel Development, Computer Architecture, Operating Systems, HPC

Mahindra University, Hyderabad, India — July 2019 - June 2023
Bachelor of Technology in Computer Science and Engineering — *CGPA: 8.04*

Maharshi International Residential School, Sriperambudur, India — April 2017 - March 2019
Senior Secondary High School — *Percentage: 92%*

INTERSHIP EXPERIENCE

Embedded Firmware Developer Intern — Futuristic Labs, Hyderabad
Manager: Goutham Gandhi — *Jan 2023 - June 2023*
Working on the firmware of Riku, a product that automates the process of cooking food. Specific work includes:

- Implemented the debugging workflow on ARM using Black Magic Debug.
- Worked on Python firmware and RTOS for Riku, the Automatic Rice & Curry Maker.
- Developed applications on Microcontrollers such as SAM4S4C, ESP-32 and SBCs such as Raspberry PIs.

DevOps Intern — Schlumberger, Pune
Manager: Bhaskara Reddy PV — *June 2022 - Aug 2022*
Implementing DevOps practices on Maximo Application. Specific work includes:

- Ported multiple Pipelines from Maximo Development server (Windows) to Maximo Production server cluster (Linux) on Azure DevOps.
- Fixed multiple issues on Maximo Production server cluster (running Linux).
- Wrote scripts to deploy various pipelines on Maximo Production server.

Summer ML Intern — Aurify Systems, Mumbai
Mentor: Shekhar Shinde — *June 2020 - Sep 2020*

- Worked on Object Detection and tracking with lightweight models such as the MobileNet SSD.
- Optimized and deployed trained model on SBCs such as the Raspberry Pi 4B and NVIDIA Jetson Nano.
- Made an inventory management application in Python and integrated it with the trained object tracking model.

SELECTED PROJECTS

- **KeyDrive** *Course Project | Embedded Systems, 2022* - Building a custom keyboard for System Administrators and gamers. Using a SAMD10C13A as the micro controller, along with *graniuum*, a software-based USB stack for Cortex M0+ processors. Features include a full row of custom keybindings along with an SSD1306 display and a low-speed spec USB-C connector. This project is still in development.

- **Turban Culture** *Winning Project | Smart India Hackathon 2022* - Developed a solution issued by The Ministry of Culture to showcase and promote the culture of turbans in India. Users can try the turbans using the AR mode of the application, before purchasing them.

- **Project RECON** *Team Lead | Project Maintainer* - R.E.C.O.N: Raspberry Pi Enginnered Cluster Over Net. Built and worked on a Raspberry Pi 4B Compute Cluster, consisting of 9 Raspberry Pi's. Involves configuration of VLANs, GlusterFS for distributed storage, Slurm with OpenMPI for Parellel Computation and LDAP for cross-node user authentication. The Project was done under Enigma, the Computer Science Club and was fully funded by the university. The project is still in development. More info here: Project-RECON

- **Covindia.com** *Core Member | Data Acquisition* - India's first live district-wise COVID-19 tracker. Part of the team of 3 professors and 19 students and received media coverage in 40 online news articles and 7 printed news articles. The website hit 1 Million views in 2 weeks and ran for $2\frac{1}{2}$ months.

- **Classroom Allocator**, *Database Management Systems Final project* - Designed a portal for the univeristy to make classroom booking efficient and easy for both students and management. Awarded full marks.

Programming Languages:	C, C++, bash, Python, nasm, Java
Platforms and Tools:	Linux, Git, gcc, Raspberry Pi, Arduino, gdb
Spoken Languages:	English (Proficient), Telugu (Spoken), Hindi (Spoken)
Courses:	A Beginner's Guide to Linux Kernel Development (LFD103) The Linux Foundation: *Nov 2022*
	Build a Modern Computer from First Principles: From Nand to Tetris - Coursera: *May 2021*
	Machine Learning – Stanford | Online - Coursera by Andrew Ng - covering the areas of machine learning, datamining, and statistical pattern recognition: *Jan 2020*

AWARDS

- **First Place [$1250], Smart India Hackathon 2022** - *Ministry of Culture* - [August 2022] - Turban Culture
- **First Place, MECHacks 2019** - *Mahindra University* - [October 2019] – Made an Augmented Reality maze game with multiple levels.
- Awarded Scholarship of Merit for the academic years 2019 and 2020 at Mahindra University.

CONTRIBUTIONS

- **President** - *Enigma, The Computer Science Club* - [September 2021 - April 2022]
- **Vice President** - *Enigma, The Computer Science Club* - [September 2020 - August 2021]
- **Member Electronics Team** - *Gas Monkeys, Baja SAE* - [October 2021 - April 2022]
- **Device Maintainer** - *Violet, Project Xtended* - [March 2021 - April 2022]
- **Member Technical Team** - *TEDxMahindraUniversity* - [Jan 2021 - April 2021]

RELEVANT COURSES

Computer Science & Engg:	Data Structures, Design and Analysis of Algorithms, Theory of Computation, Principles of Programming Languages, Digital Logic and Computer Architecture, Object Oriented Programming, Microprocessors and Interfacing, Database Management, Operating Systems, Machine Learning, Web Programming, Computer Networks, GPU Programming, Software Engineering, Distributed Systems, Compiler Design, Cryptography and Network Security, Embedded Systems, High Performance Computing, Advanced Computer Architecture, Quantum Computing
Mathematics:	Partial Differential Equations, Discrete Mathematics, Numerical Methods