

Varunram Ganesh

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Education

National Institute of Technology, Tiruchirapalli: *Bachelor of Technology*

May 2015 - July 2019

- *Bachelors in Production Engineering, First Class*
- Final year project: *Development of a Framework for Lean Integration with Industry 4.0* with Dr. S. Vinodh
- **Coursework:** Data Structures and Algorithms, Probability and Statistics, Operations Research, Product Development Strategies, Supply Chain Management, Lean Management, Sustainable Manufacturing
- **Others:** 6.046 Advanced Algorithms (MIT), 6.858 Computer Systems Security (MIT), 6.034 Artificial Intelligence (MIT), Advanced Cryptography (Stanford), Design and Analysis of Algorithms I & II (Stanford), Bitcoin & Cryptocurrency Technologies (Princeton)

Experience

Massachusetts Institute of Technology, Digital Currency Initiative: *Research Engineer*

May 2019 - Present

- Openx is a modular architecture for platforms using blockchain based funding models
 - Developed and implemented backend architecture and systems design
 - Led a \$12000 pilot project using Swytch.io and Atonomi platforms
- Opensolar is a platform for solar infrastructure investments on the Stellar Blockchain. Opensolar's focus is on opportunity zones in the United States, where liquid capital for critical infrastructure is limited
 - Designed the user interface and developed backend systems
 - Collaborated with 2 cooperative unions in Puerto Rico to install and test the web platform

Yale Open Innovation Lab: *Special Projects Manager*

May 2019 - Present

- Developed a platform for tracking global Carbon Dioxide (CO2) emissions
- Researched on the application of cryptographic primitives in the context of climate change mitigation
- Authored 3 prompts for the Yale Open Innovation Lab Collabathon held from Nov. 16 - Dec. 2, 2019 focused on climate change accountability and global cooperation for climate change mitigation

Kratos: *Co-Founder and Project Manager*

March 2019 - Present

- Kratos is a framework for teachers, students and parents to control and know more about data collected by third party edutech products. Kratos aims to standardize the data collection process and develop guidelines for ethical data use.
 - Developed a web interface showcasing how Kratos would function
 - Collaborated with Cambridge Public Schools Department on a pilot case study

BitHyve: *Research And Development Lead*

Feb 2019 - Present

- Developed a novel Shamir Secret Sharing Scheme for bitcoin wallets, improving resistance to loss and theft
- Developed prototypes for ideas like Schnorr signatures and Blind Signatures with a focus on bitcoin wallets.

Massachusetts Institute of Technology, Digital Currency Initiative: *Research Intern*

May 2018 - May 2019

- Developed on lit, a Bitcoin Lightning Network client implementation
- Tested software for making vending machines compatible with the Bitcoin Lightning Network
- Developed and tested a mobile application for Discreet Log Contracts
- Theorized a platform using blockchain based funding models, later developed as openx

The Musicoin Foundation: *Project Manager*

June 2017 - Feb 2019

- Musicoin is a blockchain focused on widening the reach of independent musicians by enabling real time payments.
 - Developed the web interface and maintained backend infrastructure.
 - Founded the Musicoin Bounty Program that incubated projects building on Musicoin
 - Responsible for technical hiring and human resource management

Frrole AI: *Backend Developer*

May 2017 - July 2017

- Developed a big data pipeline for analysing Instagram images powered by Apache Kafka and MongoDB
- Integrated intelligent profile lookups powered by FullContact with Frrole's Machine Learning algorithms

Activities

Maximus, Math Society of NIT Trichy: *President*

Aug 2018 - May 2019

Department of Production Engineering, NIT Trichy: *Web Operations Head*

Aug 2016 - May 2018

Delta, NIT Trichy: *System Administrator*

Aug 2016 - May 2018

AIIESEC in NIT, Trichy: *Outgoing Students Coordinator*

Jan. 2016 - July 2016

AIIESEC in Assumption University, Thailand: *Teacher*

Dec. 2015 - Jan. 2016

Presentations

IEEE Big Data, PSBD 2019

December 10, 2019

Defcon 27, BCOS Village

August 11, 2019

Oxford Internet Institute

June 24, 2019

Yale-NUS, Data Science and Blockchain Hackathon

March 15, 2019

MIT Media Lab, Members Week

October 23, 2018

Hong Kong University, Platform Cooperative Conference

September 20, 2018