Varunram Ganesh

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Education

NIT Trichy (National Institute of Technology, Tiruchirapalli)   Tiruchirapalli, India
B.Tech in Production Engineering   May 2015 - July 2019
- President of Maximus, the math society of NIT, Trichy
- Member of Delta Force, the premier programming club of NIT, Trichy

Relevant Classes
- **Coursework:** Data Structures and Algorithms, Computer Organization, Probability and Statistics, Product Development Strategies, Supply Chain Management, Sustainable Manufacturing
- **Others:** 6.046 Advanced Algorithms (MIT), 6.858 Computer Systems Security (MIT), 6.034 Artifical Intelligence (MIT), Advanced Cryptography (Stanford), Design and Analysis of Algorithms I & II (Stanford), Bitcoin & Cryptocurrency Technologies (Princeton)

Relevant Skills

- **Languages:** Go, Python, Javascript, C, C++, HTML&CSS, Bash, SQL
- **OSes:** Linux (Debian, Ubuntu), MacOS, Windows (98-10)
- **Tools:** Git, MongoDB, MySQL, postgreSQL, LevelDB, Jenkins
- **Frameworks:** Node.js, React.js, Ruby on Rails, Jenkins

Research Experience

Tsai Center for Innovative Thinking at Yale   New Haven, USA / Remote
Special Projects Manager, Full Time   May 2019 - Present
- Investigating into how cutting edge cryptographic primitives can be applied in the context of climate change mitigation and action
- Developing integrated data oracles to verify CO_2 emissions data

MIT Media Lab Digital Currency Initiative   Cambridge, USA / Remote
Research Engineer, Full Time   May 2019 - Present
- Lead developer on openx, responsible for architectural design, interactions with the blockchain and strategic partner outreach
- Lead developer on opensolar, a platform for investing in green energy projects powered by the Stellar blockchain
- Researching into smaller proof sizes for Zero Knowledge Arguments of Knowledge (Zk-STARK)

MIT Media Lab Digital Currency Initiative   Cambridge, USA / Remote
Blockchain Researcher, Internship   May 2018 - May 2019
- Worked on lit, the Bitcoin Lightning Network implementation at the MIT Media Lab's Digital Currency Initiative
- Developed openx, a smart interface for next generation funding models powered by IoT and blockchain based data
- Researched into how identity of IoT devices can be used to build a pseudonymous reputation system on the blockchain
- Integrated Japanese vending machines with the Bitcoin Lightning Network

École Normale Supérieure   Remote
Fuzzing Researcher   May 2017 - August 2017
- Worked on afl to mutate inputs and find vulnerabilities
- Looked into how fuzzers mutate inputs and developed better fuzzing methods

Startups Founded

Kratos   Cambridge, USA / Remote
Founding Team Member and Project Manager   March 2019 - PRESENT
- Researching the implications of data privacy breaches in schools.
- Developing a platform to report and monitor the kind of data being collected by different vendors in the edutech space.
- Conducting surveys on parents' data literacy

The Musicoin Foundation   Remote
Founding Team Member and Lead Developer   June 2017 - February 2019
- Founded the Musicoin Bounty Program which incubates innovative ideas on Music and provides funding for research and development
- Lead Maintainer of the Musicoin Wallet, which serves as an interfaces for interacting with the Musicoin blockchain
- Was responsible for technical hires and HR management

Work Experience

BitHyve   Pune, IN / Remote

RESEARCH AND DEVELOPMENT LEAD   February 2019 - PRESENT
- Investigating on how User Experience of Bitcoin Wallets can be improved by applying new developments on top of the Bitcoin protocol
- Thinking on how non technical people can better use technical systems
- Looking into Schnorr signatures and its applications to Bitcoin Wallets

Frrole AI   Bangalore, IN

BACKEND DEVELOPER   May 2017 - July 2017
- Implemented text and image based analytic algorithms for parsing data from Instagram
- Maintained different server instances on Microsoft Azure

Volunteer Experience

Open Source Volunteer   Remote

OPEN SOURCE VOLUNTEER TO LEADING ORGANIZATIONS   Aug. 2016 - PRESENT
- The Scala Foundation: Implemented a documentation generating engine for Dotty
- The Nmap Project: Implemented changes in the Nmap CLI, Npcap, Zenmap and the Nmap Scripting Engine
- Bootstrap: Implemented various new classes used for styling and positioning
- MyCrypto: General Bug Fixing and added Musicoin Integration to MyCrypto

AIESEC in Thailand   Nakhon Pathom, Thailand

ENGLISH TEACHER FOR STUDENTS   Dec. 2015 - Jan. 2016
- Taught English to primary and secondary school students aged between 8-14
- Developed creative ideas to make learning English interactive and interesting

National Service Scheme   Tiruchirapalli, IN

COMMUNITY VOLUNTEER   Aug. 2015 - Nov. 2015
- Part of the Clean India Campaign in NIT, Trichy
- Developed posters and pamphlets to educate people about the Clean India campaign

Presentations and Papers

Delta Summit, Presentation   Malta

KRATOS - A PLATFORM FOR STUDENT DATA PRIVACY, LITERACY AND AGENCY   October 2, 2019

Defcon 27 BCOS Village, Paper + Presentation   Las Vegas, USA

DISTRIBUTED DECENTRALISED SECURITY FOR BITCOIN WALLETS   August 11, 2019

Oxford Internet Institute, Paper + Presentation   Oxford, UK

DATA PRIVACY, LITERACY AND AGENCY FOR STUDENTS IN A DATA-DRIVEN EDUCATIONAL SYSTEM   June 24, 2019

Yale-NUS Data Science and Blockchain Hacakthon   Singapore

OPENSOLAR - A PLATFORM FOR FUNDING SMART SOLAR INFRASTRUCTURE USING THE STELLAR BLOCKCHAIN   March 15, 2019

MIT Media Lab Members Week Demo, Presentation   Cambridge, USA

LIGHTNING NETWORK POWERED VENDING MACHINE   October 23, 2018

Hong Kong University International Collabathon, Presentation   Hong Kong

MUSICOIN - A BLOCKCHAIN FOR MUSICIANS   September 20, 2018

Honors and Awards

Hult Prize, India   New Delhi, IN

TOP 100 STARTUP IDEAS   April, 2018

Festival of Innovations   New Delhi, IN

TOP 100 INNOVATIONS   February, 2018

108 Emergency Services Hackathon   Chennai, IN

MOST INNOVATIVE SOLUTION   December, 2017