

# Nidhin Mahesh

Applying for Freelance / Full time.

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## Research Works

**Conceptualizing Blockchain based Energy Market for Self Sustainable Community.** — *published in The 2nd Workshop on Blockchain-enabled Networked Sensor Systems (BlockSys 2019) November 10th 2019, Columbia University, New York, in conjunction with ACM SenSys 2019.*

Nidhin Mahesh A, Sai Shibu N B, Balamurugan S.

In this paper, three use cases for P2P energy trading in a private blockchain network is discussed. The blockchain architecture is developed using the Hyperledger framework and the smart contracts are defined in the chaincode. The performance of the blockchain network on resource constrained IoT system based on Raspberry Pi is also evaluated.

**Blockchain Framework for Social Media DRM based on Secret Sharing** — *published in Springer International Conference on Information and Communication Technology for Intelligent Systems (ICTIS) 2020 - Ahmedabad.*

Kripa M, Nidhin Mahesh A, Ramaguru R, and Amritha P P.

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**Decentralized Power System and Future Mobility: The Use Cases of Community Driven Electric Vehicle Charging Infrastructure.** — *published in 1st ACM International Workshop on Technology Enablers and Innovative Applications for Smart Cities (TESCA - 2019) November 10, 2019 at Columbia University, New York.*

Sai Shibu N B, Balamurugan S, Arjun D, Nidhin Mahesh A.

This paper discusses different use cases for EV enabled blockchain based energy trading in a smart community. This paper also envisions the use of electric vehicles as a mobile power bank and enables vehicle to building power trading in a blockchain energy community. To be released in ACM Digital Library

## SKILLS

Languages - C, Golang, Java, Python.

Fluent and experienced in content writing - Writer at Towards Data Science Publications.

Presentation and Teamwork - active member of Free and Open Source Software club (FOSS) at Amrita School of Engineering, Amritapuri. 2017 - 2019. Among top 10 FOSS clubs as per number of Google Summer of Code selections

## EVENTS, HACKATHONS

Attended **Google Developers-Developer Student Clubs Lead Summit** 3 day event at The Leela Goa, Goa. Interacted with Googlers and Indian NGO representatives to find solutions to their scalability challenges using design thinking techniques.

Selected for **6th Undergraduate Summer School at Indian Institute of Science, Bangalore.** Conducted by Computer Science and automation (CSA) department. A week long camp giving brief on various research subjects and opportunities they create.

**Trained 200+ students in 3 hands-on workshops in**

## PROJECTS

### **Blockchain for data provenance — Hyperledger, Docker, Golang, Vue.js.**

Associated with TIFAC-Core in Cyber Security (Ettimadai) under Dr. M Sethumadhavan to develop a data provenance system and associated tools. Project is nearing its completion.

### **Amrita WNA Blockchain Testbed Development — Hyperledger, Docker, Raspberry Pi 3B+, Golang.**

Developed Hyperledger based application independent Blockchain Testbed. The testbed consists of 7 Raspberry Pi node which is the participants of the blockchain network. The testbed supports smart contracts written in Golang. For demonstration purposes, P2P Energy trading contracts were deployed and executed.

### **P2P VoIP based dating app — Flutter, VoIP (PION)**

Partnered with a startup to prototype a VoIP based proof of concept application to enable investment pitch and internal testing for the founders.

### **Redbeans - Grocery aggregator and payment — Flutter**

COVID-19 lockdown had significant impact on supermarket sellers, this project came from partnership with an energetic team at Bridcodes Global, to combines a known delivery management technique to easy and convenient grocery delivery experience abiding to preventive measures by govt. The result was practically realizing the vision using the API endpoints they provided from store management system.

### **Clubby - Project collaboration and social networking — Flutter**

Created a project collaboration app for upcoming major short movie festival hosted by the client. I worked with a team to integrate API, Chat and Google Sign-in and tokens to the iOS and Android releases.

### **Mobile Payment Transaction and Analysis — PHP**

Money accepted physically is stored as virtual money in user's wallet. This was used in stalls during Robotsavam-2017 fest. Data Tables API, JSON, jQuery and AJAX were used.

## ROLES

### **Lead (Community Organizer)— Developer Student Club at Amrita Vishwa Vidyapeetham, Amritapuri Campus.**

Google collaborates with university students who are passionate about growing developer communities and supports them with starting student clubs on their campuses.

Flutter - a fast hybrid mobile app development framework.

Google Developer Days - 2018  
Attended 2 day event at BIEC, Bangalore.

Second at **Android Duos** competition at Yagna Dhruva 2018 @LBS Engineering College, Trivandrum.

Wikimedia Hackathon by FOSS@Amrita - MediaWiki -2016 participated in hackathon conducted by FOSS club at Amrita School of Engineering, Amritapuri

## SOCIAL COMMITMENTS

**International Conference on Robotics & Automation for Humanitarian Applications 2016** at Amritapuri, Kerala. Poster Presentation and Volunteering.

### **Student Social**

**Responsibility Program** A team of 7 members took 4 day session at Vivekananda Tribal School, Wayanad on Education and Social Taboo.

**Mentor / Member (Android Team) — *Free and Open Source Software (FOSS) club at Amrita University.***

[amFOSS](#) is India's Leading FOSS & Computer Science Club.. We encourage, support and mentor students to improve their technical and social skills.

## **EDUCATION**

**Amrita School of Engineering, Amritapuri — *B.Tech in CSE***

JULY 2016 - Present

Shaping my knowledge in Computer Science.

**Sree Narayana Vidya Mandir Sn. Sr. School, Talap — *12th CBSE***

- APRIL 2016

Developed my Character and attitude, studied Biology Science stream and secured aggregate of 83% in Higher Secondary exam conducted by the Central Board of Secondary Education, India.

## **WRITINGS**

**Understanding a TensorFlow program in simple steps. — *In Towards Data Science***

**TensorFlow : No idea where to begin? — *In Towards Data Science***

**Setting up Hadoop -MapReduce, HDFS and YARN. Standalone and pseudo-distributed mode. — *Medium***