Sangeeta Kakati

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Education

University of Luxembourg — Luxembourg
Doctoral Researcher — *Present position*

Indian Institute of Information Technology — Guwahati, India
Master of Technology in Computer Science — *May 2022*
- CGPA: 8.78

Central Institute of Technology — Kokrajhar, India
Bachelor of Technology in Information Technology — *2016-2020*
- CGPA: 9.12

Kendriya Vidyalaya — Barpeta, Assam
AISSCE (Class 12) — *2014-2016*
- Percentage: 84.6

Kendriya Vidyalaya — Barpeta, Assam
AISSE (Class 10) — *2014*
- CGPA: 10
- Merit Certificate

Experience

Research Intern — May-July 2021
Indian Institute of Information Technology(IIIT) — *Guwahati, India*
- Secure Multiparty Authentication without trusted third party
- Tool Used: AVISPA

Research Intern — June-July 2019
Indian Institute of Technology(IIT) — *Assam, India*
- Research on Security in Internet of Things by dividing it into three security aspects Authentication, Authorization and Access Control

Software Intern — January 2019
Indian Oil Coorporation Limited — *Assam, India*
- Application for fetching semester results of an institute

Projects

Mobility aware task-offloading in fog assisted networks | *IoT, Cloud, Fog, Edge* — July 2021 – May 2022
- Optimal offloading mechanism for mobile end-users in distributed systems
- Performing migration in services with long term analysis(vehicular services)
- Minimize the case of migration by doing offloading until it is an essential requisite to perform migration (Since migration incurs some extra cost)
- Implementation: SUMO mobility, MobFogSim,iFogSim

IoT based automated outdoor lighting system | *IoT, Android, Sensors* — July 2019- February 2020
- Objective was to enhance the maintenance of the current outdoor lighting systems
- Used Thinkspeak as the cloud server to send sensor's data
- Integrated IR, LDR, Current Sensors to detect presence of obstacle, light
- Detection of faulty lights and real-time display in an android application

Other short hand projects
- Face recognition using Python
- Background subtraction and object detection
- Guest house reservation system
- Face mask detector with OpenCV Python
- Home automation systems

Publications & Achievement

- Paper entitled *Mobility-aware Task Offloading in Fog-Assisted Networks* presented in IEEE GLOBECOM 2022.
- Kakati, S., Ray, K., Deka, R. (2022, June). Cloud and Fog Computing based Industrial IoT Production Management. In 2022 2nd International Conference on Intelligent Technologies (CONIT) (pp. 1-5). IEEE.
- Kakati, S., Chouhan, D., Nag, A., Panja, S. (2022). Survey on Recent Malware Detection Techniques for IoT. In Pattern Recognition and Data Analysis with Applications (pp. 647-659). Springer, Singapore.
- Kakati, S., Deka, R. (2022, June). Computational and Adaptive Offloading in Edge/Fog based IoT environments. In 2022 2nd International Conference on Intelligent Technologies (CONIT) (pp. 1-6). IEEE.
- Kakati, S., Mazumdar, N., Nag, A. (2022). Green Cloud Computing for IoT Based Smart Applications. In Green Mobile Cloud Computing (pp. 201-212). Springer, Cham.
- Best pitch presenter in the NorthEast Hackathon 2019
- Certificate of merit for securing 10 CGPA in All India Secondary School Examination(AISSE)
- Among top 100 performers in C test , conducted remotely from IIT Bombay with course material provided by the Talk To Teacher project

Technical Skills

Languages: C, C++, Python, Rust
Areas of Interest: Cloud/Fog/Edge Computing, IoT
Frameworks: MobFogSim, iFogSim, AVISPA, Netsim, Thinkspeak
Databases: MySQL, MongoDB
Skills: Programming, Wireless Mobility, Task Offloading, Migration

Extra-curricular activities

Tutor : Python and C++ Tutor, 2021
Mentoring: Workshops under ACM Student chapter, Mentored four UG students
Other activities: Musical instruments (Guitar, Ukulele)
Art: Calligraphic Arts