

Sujit Chowdhury

Contact	Ph.D. Scholar, IIT Patna Department of Computer Science & Engineering Indian Institute of Technology (IIT) Patna, India	E-mail: sujitgopal880@gmail.com Mobile: (+91) 8509126880
Research Interest	Distributed Machine Learning, Reinforcement Learning, Secure Federated Learning, Computer Vision, and Blockchain Technology.	
Present Work Description	Presently, I am working on "Blockchain-based Federated Medical Image Analysis Framework" (I) To investigate how blockchain technology can be used in order to provide security and trust among untrusted participants in collaborative learning. Additionally, we investigate the various challenges induced by the use of blockchain technology during the collaborative learning process and their possible mitigation strategies. (II) Investigation of medical image analysis approaches and contributing to improve its performance. (III) Investigate the possible adversarial attacks in federated deep learning and how to prevent them. (IV) We also investigate how reinforcement learning can help in order to improve the scalability of a blockchain platform.	
Education	<ul style="list-style-type: none">• Ph.D. in CSE, Indian Institute Of Technology Patna (August 2020 - Ongoing)• M. Tech in CSE, Indian Institute Of Engineering Science and Technology (July 2018 - July 2020)• B. Tech in CSE, Jalpaiguri Government Engineering College (July 2011 - June 2015)	
Research Publication	<ol style="list-style-type: none">[1] Sujit Chowdhury, Arnab Mukherjee and Raju Halder. FedRLChain: Secure Federated Deep Reinforcement Learning with BlockChain. (Accepted in IEEE Transactions on Services Computing)[2] P. Sahoo, S. Saha, S. Mondal, S. Chowdhury and S. Gowda (2022), Vision Transformer-based Federated Learning for COVID-19 Detection using Chest X-ray, in ICONIP 2022, New-Delhi, India (Core rank B).[3] P. Sahoo, S. Saha, S. Mondal, S. Chowdhury, S. Gowda (2022), Computer-Aided COVID-19 Screening from Chest CT-scan using a Fuzzy Ensemble-based Technique, in 2022 International Joint Conference on Neural Networks (IJCNN 2022), July 18-23, 2022, Padova, Italy.[4] Md Tauseef Alam, Sujit Chowdhury, Raju Halder and Abyayananda Maiti. Blockchain Domain-Specific Languages: Survey, Classification, and Comparison. Proc. of the 4th IEEE International Conference on Blockchain (IEEE Blockchain '21), Pages 499-504. Melbourne, Australia, 6-8 Dec 2021. IEEE Press.[5] Ghazaala Yasmin, Sujit Chowdhury, Janmenjoy Nayak, Priyanka Das, and Asit Kumar Das. Key moment extraction for designing an agglomerative clustering algorithm-based video summarization framework, Neural Computing and Applications, pp. 1–22, 2021.	
Experience	<ul style="list-style-type: none">• Teaching Assistant at IIT Patna (2020 - Present)• Teaching Assistant at IIT Shibpur (2018 - 2020)• Software Engineer at Divsoft Solutions Pvt. Ltd. (2017 - 2018)	
Competency	<ul style="list-style-type: none">• Software Programing Language: C, C++, Python.• Web Programming: HTML, PHP, CSS.• Logical Programming Language: PROLOG.• Operating System: Ms Windows, LINUX.• Database: MySQL, Cassandra.	

Workshop / Short Course Attended	<ul style="list-style-type: none"> • Participated in IEEE International Symposium on 6G Mobile Wireless Communication. • Participated in the GIAN course A Proof and Refinement based Development for Cyber-Physical Systems. • Participated in the GIAN course A Guided Tour to Static Program Analysis: State-of-the-Art Tools and Techniques. • Participated in the workshop on Ethical hacking and information security by Saslab.
Extra Curriculum	<ul style="list-style-type: none"> • Member of the literary society at Jalpaiguri Government Engineering College (2012 - 2015). • Member of jeclet in Jalpaiguri Government Engineering College (2012 - 2014).
Personal Details	<ul style="list-style-type: none"> • Name : Sujit Chowdhury • Address : Umapatipur, Buruj, North 24 Parganas, West Bengal - 743401 • Date of birth : 10th Feb 1994 • Hobbies : Sketching, Teaching, Playing Chess. • Languages Known : English, Hindi, Bengali.
References	<ul style="list-style-type: none"> • Prof. Raju Halder Department of Computer Science & Engineering Indian Institute of Technology Patna, Bihta-801106, Patna, Bihar, India Email: halder@iitp.ac.in ★ <i>Prof. Raju Halder is my PhD adviser.</i> • Prof. Asit Kumar Das Department of Computer Science and Technology Indian Institute of Engineering, Science and Technology Shibpur, Howrah, West Bengal, India Email : akdas@cs.iists.ac.in ★ <i>Prof. Asit Kumar Das was my post graduate adviser.</i>