

# Rishav Chatterjee

---

## CONTACT INFORMATION

1C-24, King's Palace 9B  
KIIT University, Odisha,  
India, 751024

E-mail: [rishavpiku@gmail.com](mailto:rishavpiku@gmail.com)  
Mobile: +91 9064841997

I am a self-motivated hard-working student interested in all aspects of computer science and engineering. I am a Software Developer and my interests include Machine Learning and Blockchains. I am also interested in Python development and support open-source contribution.

## EDUCATION

**Kalinga Institute of Industrial Technology (KIIT) Bhubaneswar, India** July 2015 - Present  
*B.Tech. in Computer Science and Engineering - CGPA of 7.56/10 (upto 6th Semester)*

**DAV Public School (DAV), Midnapore, West Bengal**

- AISSE (CBSE) - scored CGPA of 9.4/10 2013
- AISSCE (CBSE) - scored 86% 2015

## EXPERIENCE

**Indian Institute of Technology, Kanpur** 20/05/18 - 13/07/18

Research Associate at [Cyber Security and Critical Infrastructure Lab](#)  
Supervised by [Prof. Sandeep K. Shukla](#), Advisors: [Ras Dwivedi](#), [Rohit Negi](#)

Project Title : Land Registry Management using Blockchain

- Worked on hyperledger based blockchain framework to create an effective land registry and verification system.
- Made an efficient Document Verification Algorithm using KSI Blockchain

**Indian Institute of Technology, Kharagpur**

1/05/17 - 20/08/17

Research Intern at [Secured Embedded Architecture Lab](#)

Supervised by [Prof. Debdeep Mukhopadhyay](#), Advisors: [Prabhat Kushwaha](#)

Project Title : IoT Security using Blockchain (Removing Centralization of Cloud Servers)

- Tried to make the basic Implementation of Physically Unclonable Functions and IBE for smart homes.
- Integrated this with Hyperledger Fabric so as to make a model for about (fewer devices) few peers.

**Nanyang Technological University, Singapore**

30/05/17 - 1/08/17

Research Assistant at [Hardware and Embedded Systems Lab](#)

Supervised by [Prof. Anupam Chattopadhyay](#), Advisors: [Mayank Raikwar](#), [Subhra Mazumdar](#)

Project Title: Application of Blockchain Protocols for Industrial Processes (NTU-AIA Project)

- Built the Front end GUI for AIA (Health Insurance Company) Blockchain.
- Worked on the Backend by using Hyperledger Fabric Blockchain Framework and took care of every underlying principles for Insurance Blockchain. The entire model will be used by AIA within months to come.

**Indian Statistical Institute, Kolkata**

May 2016 - June 2016

Summer Research Intern at [RC Center of Cryptology and Security](#)

Supervised by [Prof. Sourav Sengupta](#)

Project Title : Building Decentralized Apps using Ethereum Blockchain

- Worked on the Proof of Concept and Proof of Stake implementations of the two Blockchain projects on Ethereum Framework.(E-voting Project , Marble Project).
- Built one Decentralized Application "Tcoin" and it is my own Cryptocurrency.
- Implemented Blockchain in C++ (Merkle Tree, SHA-256 algorithm implementation included).

**Primechain Technologies**

1/09/17-20/09/17

Blockchain Development Intern at [Primechain](#)

Supervised by [Mr. Rohas Nagpal](#)

Project Title : Bankchain Project ([E-KYC Problem Solved](#))

- Made the Proof of Concept implementation for Banking Blockchain.
- Developed the PoC of E-kyc problem for the banks under Bankchain.

## Secureblocks Labs (CSquarelab IT Solutions India Pvt. Ltd )

30/12/17-20/1/18

Blockchain Development Intern at [Secureblocks Labs](#)

Supervised by [Mr. Satyam Agarwal](#)

Project Title : The Cryptocurrency Project ([ERC-Token Development](#))

- Worked on a development of a Cryptocurrency named "UBER" & "AMONIUM".
- Worked on Hyperledger Composer to create a Business Network, which support Multi User Authentication (Using Rest API).

## Triumph Automation Pvt. Limited

December 2015

Full Stack Web Development Intern

Project Title : Website Development

- Developed their Website (Front-end and Back-end) using Javascript, Bootstrap, PHP
- It is live already ([Website Link](#))

## PROJECTS

- **Research Project under UTS (University of Technology, Sydney)**  
Advisors- [Prof. Nabin Sharma](#), [Prof. Michael Blumenstein](#)  
Worked on the development of the dataset for the ICDAR 2017 Competition on Video Script Identification (CVSI 2017). I developed an interface using Matlab and it is basically an annotation tool which is used to extract words from a video.
- **Decentralized Application named Bitcoin Wallet** - It is the wallet where we can perform transactions with any of the Cryptocurrency digitally and Bitcoin mining has been enabled. We can add accounts, keep a check of the transactions using the log and most importantly, it is user friendly. It is live on the Official Ethereum Ethercast Dapps page ([Dapp is live !](#))
- **Cryptanalysis of Grain Stream Cipher (IIT Kharagpur Project) -**  
Advisor: [Prof. Sourav Mukhopadhyay](#)  
Attacked Modern Stream Cipher named Grain-80 using and built a cipher which has been named as Grain 128a.
- **Image Compression Project**  
Advisors: [Rajdeep Chatterjee](#), [Alenrex Maity](#)  
Used a manual dataset and compressed images (Code written on Matlab) using VQ Algorithm with Lossy Compression. Found better plots of Reconstruction ratios of the tif images (even after distortion).
- **Extraction and Classification of Linguistic Text for Text Summarization**  
Advisor: [Prof. Chinmaya Mishra](#) Co -Advised by : [Satyaki Sanyal](#)  
This project advocates the thesis that the summarizations obtained from a sentence can be categorized, ranking keywords by different fuzzy value as scores. The propounded approach consists of three steps: scanning the whole text for matching keywords, then checking the number of repetition of keywords, and finally ranking each matched category for final result. The work could found [here](#)
- **Microlending Platform - Blockchain**  
[Our Application is on Sale !](#)  
This is micro-financing application built on hyperledger fabric and it used hyperledger composer for the authentication purposes in the Business Network. It gives a high throughput and is highly scalable and secure in terms of latency and the number of transactions, which could be made throughout.

## THESIS

- **Undergraduate Thesis (Minor)- Efficient Face Recognition System**  
Supervised by : [Rajdeep Chatterjee](#)  
I have developed an efficient algorithm combining the both KLT and Viola-Jones Algorithms. It shows better results than the existing ones. We have plots for the same. ([Technical Report](#))

## PUBLICATIONS

- An Overview of an Emerging Technology: Blockchain, Rishav Chatterjee 1 , Rajdeep Chatterjee, International Conference of Computational Intelligence & Networks (CINE 2017, IEEE). ([Paper Link](#))
- A Novel Approach for Speckle Noise Reduction in Images", Alenrex Maity, Rishav Chatterjee, SOCPROS 2017 IITBHUBANESWAR (AISC Series of Springer), Page 35. ([Paper Link](#))
- Image Compression Using VQ for Lossy Compression", Rishav Chatterjee, Alenrex Maity, Rajdeep Chatterjee, IEMIS 2018 (AISC Series of Springer) ([Paper Link](#))
- Other papers could be found [here](#)

## ACHIEVEMENTS

- Finalist at the Jio Code Gladiators Blockchain Hackathon 2018
- Winner at the Capgemini Tech Challenge 2017
- Runners Up at the IBM Universities Relations Hackathon 2017 (Domain- Blockchain)
- Runners Up at the Mozilla Foundation Community Hackathon 2017/
- Won the Second Runners Up prize at the Technical Paper Competition, Computer Society of India, held at KIIT University. Presented a paper on Cloud Security using Homographic Encryption.
- Best Campus Ambassador - IIT Kharagpur E-Cell (2016-2017)

## POSITIONS

- **Coordinator**- IT & Web Development Society, KIIT University
- **Vice Chair** - ACM KIIT STUDENT CHAPTER, EAST ZONE
- **Coordinator** - Mozilla Club Bhubaneswar
- Internshala Student Partner 3.0
- **Director - Delegate Affairs** of the Bhubaneswar Diplomatic Summit 2017

## RELEVANT COURSES

- Core Java
- C & C++
- Fundamental Design of Algorithms and analysis
- Android Nanodegree
- Python with Data Science
- Machine Learning Foundations: A Case Study Approach
- Cryptography
- Bitcoin & Blockchains
- INTERNETWORK SECURITY
- Blockchain For Developers
- Bluemix Essentials
- HTML 5
- Data Structures
- Database Management Systems
- High Performance Computer Architecture
- Finite Automata

## SKILLS

**Programming Languages** - C++, C, Python, Java, SQL, HTML, Matlab, Scala, Solidity, Golang, CSS, Javascript, Bootstrap, PHP.

**OS and IDE** – Linux, Windows, Android Studio

**Other Tools** - Git,  $\LaTeX$ , Docker

**Communication** - English(Proficient), Hindi(Proficient), Bengali(Proficient)

## TALKS

ACM KIIT STUDENT CHAPTER TALK on "CRYPTOGRAPHY: THE ART OF DATA HID-ING". Date - March 24, 2017

ACM TALK on "CAREER CHOICES: RESEARCH or JOBS". Date- November 11, 2017

## EXTRA CURRICULAR ACTIVITIES

I like Singing. I have my own Youtube Channel for the same. ([Link](#))

I have been a member of a renowned NGO(Bakul Foundation). ([Link](#))

I like participating in various Workshops irrespective of places, since I am always keen to learn new things( apart from the coursework).

## USEFUL LINKS

- [Portfolio/Website](#)
- [Github](#)
- [Research Gate](#)
- [Linked In](#)
- [Hacker Rank](#)

## REFERENCES

- Dr. Sourav Sengupta  
Lecturer  
Nanyang Technological University  
[Contact](#)
- Dr-Ing Anupam Chattopadhyay  
Assistant Professor  
Nanyang Technological University  
[Contact](#)
- Dr. Sandeep Kr. Shukla  
Professor  
Indian Institute of Technology, Kanpur  
[Contact](#)
- Dr. Debdeep Mukhopadhyay  
Professor  
Indian Institute of Technology, Kharagpur  
[Contact](#)