RITWIK SAHA

Mandi, Himachal Pradesh

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EDUCATION

Bachelor of Technology(Electrical Engineering) *2016 - 2020*
Indian Institute of Technology, Mandi Overall GPA: 7.7/10
School of Computing and Electrical Engineering

CBSE(Higer Secondary) *2016*
D.A.V. Public School, Shreshtha Vihar, Delhi Percentage: 94.4%

CBSE(Matriculation) *2014*
D.A.V. Public School, Shreshtha Vihar, Delhi CGPA: 10.0

TECHNICAL STRENGTHS

Computer Languages	C/C++, Python, MATLAB
Deep Learning Frameworks	Keras, TensorFlow
Containerization & Orchestration	Docker, Kubernetes, KNative
IoT	Arduino, RaspberryPi
Graph Databases	Neo4J, ArangoDB
Blockchain	Ethereum, Solidity, Web3
Version Control	Git, GitHub

EXPERIENCE

Siemens Technology & Services Pvt. Ltd. June 2019 - August 2019
Research Intern

· Set up infrastructure for running serverless applications.
· Leveraged Docker, Kubernetes and KNative for setting up along with various network management framework like Istio.
· Benchmarked the performance of the serverless setup under various load conditions and network topology.
· Documented the relevant code and procedures.

Siemens Technology & Services Pvt. Ltd. December 2018 - Febraury 2019
Research Intern

· Set up blockchain infrastructure with help of Private Ethereum.
· Benchmarked the transaction performance, system resource usage and network performance under a variety of conditions like variable block times, transaction loads, block size etc.
· Designed and partly implemented a supply chain solution on blockchain infrastructure.
· Tried out and partially benchmarked various competing solutions for blockchain like Tendermint
· Documented the relevant codebase and procedures.

Indian Institute of Technology, Mandi June 2017 - January 2018
Research Intern

· Organized and created dataset for IMD rainfall data and soil data from ISRO.
· Ran Machine Learning algorithms on the dataset to predict landslide predictions.

· Published the results in a paper presented at International Conference for Machine Learning and Data Science, 2018 and published on IEEE Xplore.

RELEVANT COURSES

Core Courses
Signals & Systems
Control Theory
Communication Theory
Electromechanics
Network Theory

Computer Science Courses
Data Structures and Algorithms
Communicating and Distributed Processes
Deep Learning
Artificial Intelligence
Computer Organization

Other Relevant Courses
Probablity, Statistics & Random Processes
Linear Algebra
Mathematics for Engineers

POSITION OF RESPONSIBILITIES

Summer of Code in Space   June 2019 - September 2019
Mentor   *European Space Agency*

· Assigned as project mentor for in SOCIS(Summer of Code in Space) organized by the European Space Agency(ESA).
· The project is about extending the EinsteinPy library to support symbolic calculations in General Relativity.
· The project is fiscally sponsored by European Space Research and Technology Centre(ESTEC) wing of ESA.

Indian Youth Delegation to China   July 2018
Delegate   *Ministry of Sports & Youth Affairs, Govt. of India*

· Represented Indian contingent as a delegate in Indian Youth Delegation to China - 2018
· Interacted with top officials within the Chinese Government and the Chinese youth.

Exodia(Tech-Cult Fest of IIT-Mandi)   April 2018
Video Design Coordinator   *IIT Mandi*

· Was tasked with the job of creating teasers, trailers and promo videos of the fest Exodia.
· This improved my video editing skills on Adobe Premiere Pro & After Effects.
· Link to the videos.

PROJECTS

The EinsteinPy Project   February 2019 - Present
· Founder of EinsteinPy - An Open-Source Python Library for General Relativity
· Partly sponsored by European Space Agency(ESA).
· Soon to be sub-organization under OpenAstronomy
· GitHub Repository

Exoskeleton for Motion Assistance   January 2018 - April 2018
· Designed & Implemented an Exoskeleton intended for military purposes.
· The Exoskeleton enabled the user to lift weights upto 40 kgs without any locomotive hindrance.
· The Project won 1st prize in 2018 edition of the Design Practicum Curriculum.