



SAYANI DUTTA

MECHANICAL ENGG. (B.TECH 4Y)
MINOR in Computer Science Engineering

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ACADEMIC PROFILE

Year	Degree/ Exam	Institute	CGPA/%
2018-22	B.Tech, Mechanical Engg	Indian Institute of Technology, Kharagpur	9.45/10
2018	Senior Secondary Exam	WBCHSE, Kolkata	96.2%
2016	Secondary Exam	WBBSE, Kolkata	92.71%

COURSES UNDERTAKEN

Information Retrieval	Partial Differential Equation	Fluid Mechanics	Transform Calculus	Dynamics
Large Scale Search Engine	Probability and Statistics	Programming and Data structure	Machine Learning	
Algorithms and Data Structures	Basic Electronics			

INTERSHIPS AND PROJECTS

INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR | RESEARCH INTERNSHIP

Variation of Thermal Conductivity with the length of CNT (Carbon Nanotubes), Civil Engineering Department, IIT Kharagpur

(Mar 2019 - July 2019)

Principal Investigator: Prof. Puneet Kumar Patra (Professor, Civil Engineering, IIT Kharagpur)

- Studied different models in Statistical Mechanics (Phi 4, FPU) to model and interpret energy transfer
- Studied the effect of damping and wrote codes in C++

Aspect Based Sentiment Analysis, Computer Science Engineering Department, IIT Kharagpur

(August 2019 - November 2019)

Principal Investigator: Prof. Niloy Ganguly (Professor, Computer Science Engineering Department, IIT Kharagpur)

- Studied different papers on aspect extraction task using Neural Networks
- Used different word embeddings to extract aspects by training the data

INTERSHIPS AND PROJECTS

STEP, IIT Kharagpur

Mentor: Prof. Pranab Kumar Dan (Associate professor, Rajendra Mishra School of Engineering Entrepreneurship, IIT Kharagpur)

Improved Cooler, Prodex IIT Kharagpur | Summer Internship

(Mar 2019 - July 2019)

- To eliminate the need for air conditioners due to increasing temperature, we developed an Improved Desert Cooler, applying the results obtained in the Evapo Reefer.
- Worked in cooling mechanism using Maisotsenko Cycle incorporation and designed a Heat Mass exchanger for indirect cooling.
- Designed a dehumidifier to ensure recovery of water from the exhaust of the improved desert cooler

TECHNICAL SKILLS

- Programming Languages:** Python, C++, C, Java(learning), Javascript, NodeJs, HTML, CSS
- Software and Platform :** Ansys, Autodesk Fusion360, Solidworks, Twilio, Docker, Heroku, Github, Anaconda, Linux
- Scientific:** MATLAB(learning), SPARK(Learning)
- Miscellaneous:** Adobe Photoshop, Adobe Illustrator
- Interests:** Machine Learning, Deep Learning, Data Analytics, Product Innovation, Case Studies, Competitive Programing

ACADEMIC ACHIEVEMENTS

- Ranked in National Top 0.5% of 1.2 million candidates that qualified for JEE Mains, all over India
- Ranked in National Top 1.6% of 0.18 million candidates that qualified for JEE Advanced, all over India
- Secured overall 10th position in State in Senior Secondary Exam
- Recipient of Senior JBNSTS (Jagadis Bose National Science Talent Search) Scholarship by qualifying in 3 levels selection

COMPETITIONS

- Secured 1st position in OPEN IIT PRODUCT DESIGNING, 2018
- Won Third Prize in the RURAL TECHNOLOGY HACKATHON, 2018 conducted by IIT Kharagpur with participation across all over IITs and IIITs
- Secured 3rd position in INTER HALL HARDWARE MODELLING Competition (General Championship)
- Led a group of 7 people as captain in OPEN IIT PRODUCT DESIGNING, 2019.

POSITION OF RESPONSIBILITY

SUB-HEAD | PRODEX | IIT KHARAGPUR

(July 2019 - present)

- Leading a team of 30+ students to solve real-life problems, by developing innovative products.
- Mentored (Team Captain) four teams of 5 members each to participate in OPEN IIT Product Designing Competition in 2019

CORPORATE PUBLIC RELATIONS TEAM MEMBER | TEAM KART |IIT KHARAGPUR

(Aug 2019 - Nov 2019)

- Worked under the guidance of four professors in the research project of designing and manufacturing of Formula Style Racecar.
- Responsible for Sponsorship as part of Team's Corporate and Public Relations which includes contacting Companies of India and abroad and alumni of IIT Kharagpur

EXTRACURRICULAR ACTIVITIES

- Designed Illumination and Rangoli of SN/IG Hall of Residence as a design team member
- Volunteer at the annual cultural fest of IIT Kharagpur | SPRING FEST 2019
- Trained in Volleyball in **National Sports Organisation (NSO)** for 1.5 years from July 2018 to November 2019.