Chirantan Ganguly

41/4, Brindaban Mullick Lane, Kadamtala, Howrah, West Bengal, India 711101
(+91) 9330192247 • chirantanganguly01@gmail.com • www.linkedin.com/in/chirantan-ganguly/

Personal Profile

Diligent and detail oriented pre-final year undergraduate with a strong academic record pursuing Electronics and Communication Engineering from the Institute of Radio Physics and Electronics, University of Calcutta. My passion is centered in the design of AI-powered IoT devices and smart sensors. I am actively looking forward to work diligently on research projects under the able guidance of industry experts to further my knowledge and career.

Education

University of Calcutta • Kolkata, India — August 2019 – Present
Bachelor of Technology • *Electronics & Communication Engg.* • CGPA: 9.79/10
Rank in Department – 1

St. Thomas' Church School • Howrah, West Bengal, India — 2019
Class XII • Indian School Certificate Examination (ISC) • Percentage : 92.25%

St. Thomas' Church School • Howrah, West Bengal, India — 2017
Class X • Indian Certificate of Secondary Education (ICSE) • Percentage : 95.6%

Work Experience

Research Intern — May 2021 – Present
Centre for Development of Advanced Computing (CDAC), Pune, Maharashtra, India

- Reviewed research articles employing Deep Learning to study the impact of the pandemic on physical and mental health of people. Two book chapters were written on our analytical review which have been accepted for publication.
- Represented CDAC in International Telecommunication Union (ITU) organised AI/ML in 5G challenge, where we explored methods for Indoor localisation where GPS do not yield accurate results using Machine Learning algorithms from Received Signal Strength (RSSI) values from Wifi routers. The solution provided was awarded by the Telecommunication Technology Committee (TTC), Japan for our meticulous approach. An article on the same is currently being written for publication.
- Initiated work on the development of a robust and deployable AutoML package for Python to make writing Machine Learning code a easier and making the power of ML accessible to all.

Research Associate – Young Scientist Program (YSP) — Jun 2021 – Sept 2021
Blue Marble Space Institute of Science (BMSIS), Seattle, Washington, USA

- We looked into the fundamentals of communication and information exchange from cells to animals to humans and artificial systems such as AI.
- We tried to understand the role of communication plays for collective behavior in species and for the adaptation and selection of species in general.
- We used information theory, agent-based modeling and natural language processing to analyze datasets such as those of gorilla calls, dolphin languages and mycelial networks.
- Had to complete ethics module (a discussion on a topic attracting conflicting views) and communication module (publishing articles for BMSIS website) for successful completion of the program.

Positions of Responsibility

Lead — May 2020 – Jun 2021
CodeClubCU(); – CodeClub of University of Calcutta (Supported by CodeChef)

- Teaching beginners about Data Structure and Algorithms, and increasing Code Literacy in Campus.
- Setting and testing problems for intra and inter college coding contests
- Hosting various talk events organised by CodeClubCU(); with distinguished Alumnus and Leaders in the Industry
- Appointing and managing Executive Team Members of CodeClubCU();
- Growing the chapter by increasing reach.

Technical Team Lead — Jun 2020 – Jan 2021
Hult Prize

- Developed Hult Prize Campus Chapter Website for University of Calcutta
- Managed other members of the Technical Team

Projects

e-Yantra Robotics Competition Mar 2021

IIT Bombay

- Programmed and simulated UR5 arms to work in fully automated warehouse scenarios
- Developed a dynamic dashboard using Web development techniques for dynamically updating and showing all relevant in formations required in a shipping scenario.
- Project Demonstration: www.youtube.com/watch?v=QIGFrAWsTJA
- Skills used: Python, ROS Melodic, Gazebo, Computer Vision, IOT, Ajax

COVID'19 Automated Screening Machine Sept 2020

Department of Biotechnology, Ministry of Science and Technology , Govt. of India

- Automated the temperature based screening task for COVID'19 screening.
- Detect and alert whenever a person is in between the range of 10cm to 20cm in front of the machine.
- Measures his/her temperature
- It should measure temperature only when someone is detected not all the time.
- If the temperature is high, then a buzzer & RED LED should be turned on, to alert Gatekeeper.
- If the temperature is normal, then it should turn on the GREEN LED.
- It should spray sanitizer whenever hands are placed below a knob/a fixed point
- Display all relevant things over the LCD & Serial Monitor simultaneously.
- Count of the number of person currently inside should be maintained and displayed properly.
- TinkerCAD Simulation Link: www.tinkercad.com/things/3I1yRh8UKWp

Honours and Awards

- Excellence Award for the AI/ML challenge Japan Round (Sponsored by ITU) – The Telecommunications Technology Committee, Japan

Technical & Communication Skills

- IDE: Google Colab, Anaconda, Visual Studio Code, Arduino, RStudio
- Programming Languages: Python, R, MATLAB, C/C++, LaTeX
- Softwares: MATLAB/Simulink, COMSOL, LTspice/Pspice, Gazebo, Microsoft Office
- Natural Languages: English, Bengali, Hindi

Certificates

- Machine Learning with Python - IBM
- Data Visualization with R - IBM
- ExploreML Intermediate Track - Google
- Managing Machine Learning Projects with Google Cloud - Google Cloud
- Data Science Math Skills - Duke University
- Data Science: Foundations using R Specialisation - Johns Hopkins University
- Python Intermediate Certificate - HackerRank
- VLSI System On Chip Design - Maven Silicon

Selected Coursework

Artificial Intelligence & Machine Learning, Computer System Architecture & Organisation, Advanced Programming Language, Analog & Digital Electronics, Signal Analysis & System Design, Satellite Communication, Antennas and Radio Wave Propagation for Long Distance Communication, Analog & Digital Communication, Electronic Devices

Profile Links

- LinkedIn: www.linkedin.com/in/chirantan-ganguly
- Github: https://github.com/ChirantanGanguly