

Dear Sir/ Ma'am,

I am Ananya Ghosh (20MIC0063), 4th year Integrated MTech in CSE student. I am extremely interested in this role. Request you to give me an opportunity to work in this organization. I believe my skills, project and research experience will help in contributing to the project I work on and add high value to it.

Please find all my details and CV attached.

**About Me:**

I work in the domain of Full Stack knowledge in Software (Web) Development, Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing and Data Analysis. I mainly develop in Python, C and C++. I have worked on 17+ projects on different technical domains including AI, ML, DL, NN, NLP, Software, Electronics. I have 1 published Research Paper on AI in the healthcare industry, and I am currently working on 2 Research papers in the field of Deep Learning and Federated Learning in disease predictions. I have 1 published blog on the Internet of Things as well. Apart from this, I have participated in 13+ hackathons and won several hackathons. I am appointed by Microsoft and IBM as Student Ambassador. I have worked on 4 internships- Project Intern at ISSA, DRDO, AI/ ML Intern at SocialWell (IT Company in Agri), FinTech Intern at Goldman Sachs and Web Development Intern at LetsGrowMore (IT & Education Company). I am a senior member and technical head at 3 IEEE Chapters and IET. Along with my own domain knowledge, I have a fair understanding of Environment, Sustainability, Net Zero, GreenHouse Gas Emission, Carbon Footprint etc.

**My Research Experience:**

- Research 1: Alzheimer's Disease Prediction using AxCoSa Multi-Deep Neural Network Architecture - (Under review)
- Research 2: Federated Average Distillation Conditional Mutual Learning in Waste Management-(Under review)
- Research 3: Bioinspired Soft computing algorithms comparative study-(Under Review)
- Research 4: Artificial Intelligence in Bringing about a Revolution in the Healthcare Industry (Published)-  
[https://www.researchgate.net/publication/348705113\\_ARTIFICIAL\\_INTELLIGENCE\\_IN\\_BRINGING\\_ABOUT\\_A\\_REVOLUTION\\_IN\\_THE\\_HEALTHCARE\\_INDUSTRY](https://www.researchgate.net/publication/348705113_ARTIFICIAL_INTELLIGENCE_IN_BRINGING_ABOUT_A_REVOLUTION_IN_THE_HEALTHCARE_INDUSTRY)
- Research 4: Future & Scope of IoT Blog (Published)-  
<https://medium.com/@ananyaghosh00164/future-scope-of-iot-833cf34d41c7>
- Research 5: Federated Average Evolutionary Stochastic Gradient Learning in Marine Plastic Pollution Management-(Under Review)
- Research 6: Explainable AI Ensembled Transfer Learning for diagnosis and prediction of progress of Alzheimer's Disease from MRI Scans-(Ongoing)
- Research 7: Blockchain-Based Carbon Reduction Challenge Platform-(Ongoing)
- Research 8: Synergizing IoT and Drone Solutions for Advanced Surveillance and Integrated Health Monitoring-(Ongoing)
- Research 9: Chronic-Kidney-Tumor-Detection-using-ML-DL - (Ongoing)

- **Research 10: Hyper-Parameter-Tuned-Ensembled-Genetic-Algorithm-Optimized-Model-PCOS-Prediction - (Ongoing)**

### My Notable Achievements:

- **Merit Scholarship (Top 3 student) awarded by VIT** for Outstanding Academic Performance, 2020-21 and 2021-22 subsequently.
- **Achiever Certificate awarded by VIT**, Vellore, for Outstanding Performance in National level Competitions 2021-22.
- **17+ Projects** in a span of 3 years (All project repositories are available in my GitHub).
- **Microsoft Learn Student Ambassador (Beta).**
- **IBM Z Ambassador.**
- **AI/ ML Intern** at SocialWell (A Software/ IT company providing software based business solutions to agricultural stakeholders). Worked on a Computer Vision and Data Analysis projects.
- **Goldman Sachs FinTech Virtual Internship.** Work on Cryptography and cyber security project.
- **Software Development and Quality Intern at DRDO**, India. Highly appreciated by the scientists and about to publish a paper with my scientist mentor from DRDO- 'A Quantitative Model for Objective Evaluation of Quality of a Software Project'
- **10+ Tutorials Delivered** in Online/Offline mode for Students of various universities and engineering colleges (including peers and seniors), on various topics on Node Js, AngularJs, Azure, Full Stack Web Development, Django Backend, Data Structures, Space Science, Arduino and IOT.
  - Microsoft Learn Student Ambassador Webinars- <https://www.youtube.com/playlist?list=PLTCQHHJ6a3vUbEqO5GTKEDUof2woI0C9W>
  - Django - <https://www.youtube.com/watch?v=kTbDRtJzC6I&t=69s>
  - Complete Web Development Roadmap- <https://www.youtube.com/watch?v=iBvhv5Z5yBo&t=135s>
  - Arduino session- <https://www.youtube.com/watch?v=umaSn3Exfi0>
  - Arrays || Data Structures- [https://www.youtube.com/watch?v=pjFinOi74GA&list=PLtp4G3lOnml4vZJ\\_ljllkh9QtHxbTbaWB&index=2](https://www.youtube.com/watch?v=pjFinOi74GA&list=PLtp4G3lOnml4vZJ_ljllkh9QtHxbTbaWB&index=2)
  - SEDS VIT Outreach Session || Basics of Space and Astronomy- <https://www.youtube.com/watch?v=bFf8FsMBEow&t=25s>
- **Hackathons Won**
  - **Winner** in Education Track in Access Denied 21 Hackathon by IETE-ISF 19th-21st March, 2021. **Project "EduVision"**. <https://www.youtube.com/watch?v=43FutdjrHhE&t=50s>
  - **Top 2 Winner in Girls** in Hack NITP 3.0 Hackathon by NIT Patna. **Project "Donation&Vaccine"**. <https://www.youtube.com/watch?v=orM0XbbdUcl&t=113s>
  - **Top 7 Winner at DoubleSlash** Hackathon by Jadavpur University 9th-11th May 2021. **Project "KrishiSahayak"**. <https://www.youtube.com/watch?v=mkJ4upvsbBM>
- **Technical Head-Board Member IEEE Women In Engineering, VIT.**
- **Scholar Badge** by DPS RubyPark School for Outstanding Academic Performance in 12th board CBSE.

## My Skills:

- Full Stack Web Software Development- UI/UX (Figma, Adobe PS, Canva), Frontend (HTML, CSS, Angular, JavaScript, Tailwind), Backend (Django, Flask, NodeJs), Database (SQL), ODK, ETL, Software Development and Project Principles and Life Cycle
- Artificial Intelligence- Machine Learning, Federated Learning, Transfer Learning
- Deep Learning, Neural Networks, Natural Language Processing, Computer Vision, Data Science, Explainable AI (XAI)
- Coding- Python, C/C++, Java
- Internet of Things- IoT APIs, Arduino, Drone, RaspberryPi, Sensors, MIT App Inventor
- Blockchain- Ethereum, Solidity
- Augmented Reality- Unity3D, C#, Vuforia

## My Projects:

LifeAI- Multiple Disease Predictor Software

Predicts Alzheimer's Dementia Prediction- 2D CNN for Dementia Architecture, Breast Cancer Prediction- Hyperparameter Tuning and Genetic Algorithm, Heart Disease Prediction- Ensemble Learning with Ant Colony Optimization, Diabetes Prediction- Supervised Learning with Crow Search Optimization, Parkinson's Disease Prediction- Voice data based Support Vector Machine Algorithm, Lung Cancer prediction using XGBoost  
<https://github.com/A-GHOSH-dev/LifeAI-Multiple-Disease-Prediction-ML-AI-Software>

Patient Condition Prediction and Drug Recommendation using Flask, NLP, ML classification, Speech to text and sentiment analysis features

<https://github.com/A-GHOSH-dev/Patient-s-Condition-Classification-and-Drugs-Recommendation-NLP-Flask-Web-App>

Industrial Incident Reporting, Investigation & Management Software- Full Stack Web Software Development

<https://github.com/A-GHOSH-dev/DBMS-Project>

ESG Software (Environmental, Social, Governance) - Full Stack Web Software Development

<https://github.com/A-GHOSH-dev/ESG-Software>

Tuition Management System - Full Stack Web Software Development

<https://github.com/A-GHOSH-dev/Tuition-Management-Software>

EduVision - AR based Education for All while connecting all stakeholders of Education Augmented Reality & Web Development

<https://youtu.be/43FutdjrHhE>

KrishiSahayak- Full stack Web Application to connect all the stakeholders of the Agriculture system in India – The Farmers, The Consumers, The Corporates / Food Consultant / NGO

<https://www.youtube.com/watch?v=mkJ4upvsbBM&t=52s>

Donation and Vaccine- Web Application and chatbot for organ, plasma and blood donation and COVID-19 vaccine program registration

<https://youtu.be/orM0XbbdUcI>

Fake Job Detection using NLP and Machine learning

<https://github.com/A-GHOSH-dev/FakeJobDetection-BCD>

Sentiment Analysis of Twitter using NLP and Machine learning

<https://github.com/A-GHOSH-dev/ML-and-NLP-based-Sentiment-Analysis-of-Twitter>

Real Time Web Chat Application using Node Js & Socket.io

<https://github.com/A-GHOSH-dev/Node-Js-101-with-VS-Code-Azure-Devops-MLSA-Webinar-2>

HackX Website- The Hackathon website for IEEE SPS VIT

Hackathon <https://www.spsvithackx.com/>

Game Database Website using AngularJs and a public API

<https://github.com/A-GHOSH-dev/Game-database-Website-using-Angular-and-Public-API>

ToDo App using AngularJs and Azure Services

<https://github.com/A-GHOSH-dev/Angular-Js-101-with-VS-Code-Azure-MLSA-Webinar-1>

Handwritten Text Recognition, Face recognition using OpenCV and pytesseract

<https://github.com/A-GHOSH-dev/Handwritten-text-image-text-extraction>

### **My Online Profiles:**

LinkedIn:- <https://www.linkedin.com/in/ananya-ghosh-739b561b8/>

GitHub:- <https://github.com/A-GHOSH-dev>

Portfolio:- <https://a-ghosh-dev.github.io/portfolio/>

YouTube:- <https://www.youtube.com/channel/UCsSy9vI-BORzjVPvgXdZwxA>

ResearchGate:- <https://www.researchgate.net/profile/Ananya-Ghosh-11>

Blogs:- <https://medium.com/@ananyaghosh00164>

Please feel free to reach out to me at +91 9163036951.

Thank you.

Best Regards,  
Ananya Ghosh