

## ANANYA GHOSH

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Python Developer, Full Stack Software Engineering and Development, Artificial Intelligence & Machine learning, Risk Analyst

### ABOUT

I am a 4th year student pursuing Integrated MTech (CSE), seeking a challenging role within Risk Analytics field, specifically within the Risk Analytics Platform and Delivery Domain, where I can leverage my skills in Python, software development, quantitative analysis, problem-solving and risk management to contribute to the development of cutting-edge risk models and analytical tools with a strong desire to follow best practices and deliver strategic solutions.

### EDUCATION

- ❖ Integrated M Tech in Computer Science & Engineering | Vellore Institute of Technology, Vellore, India
  - ❖ AISSCE CBSE (10+2) PCMB, 2018-2020 | Delhi Public School, Ruby Park, Kolkata, India
  - ❖ ICSE (10th) | G.D. Birla Centre for Education, Kolkata, India
- CGPA: 8.91/10 | (Sep'20- Jul'25)  
92.2% | (May'18-May'20)  
96% | (Apr'06- May'18)

### KEY SKILLS

- ★ Python, JAVA, C++, NumPy, Pandas, scikit-learn, SciPy, TensorFlow and PyTorch Libraries
- ★ Software Engineering Principles, Software Development Life Cycle, Agile Development, Testing Tools & Measurement, Software Design & Defect Management, Software Project and Risk Management, Git and GitHub, Jenkins, Docker
- ★ HTML, CSS, Angular, JavaScript, Django, Flask, SQL, Web APIs, REST APIs, API management and testing tools
- ★ Generative AI, Large Language Model, Langchain, RAG
- ★ Quantitative Research and Analysis Basics, Problem solving, risk management, leadership, effective communication in English

### EXPERIENCE

- ❖ Software Development and Quality Intern | Defence Research and Development Organisation (DRDO) (May'23 -Jun'23)  
Building a Quantitative Model for Objective Evaluation of Quality of a Software Project
- ❖ Undergraduate Student Researcher | Vellore Institute of Technology (Nov, 2022 – Present)  
Working on Artificial Intelligence, Machine Learning, Deep Learning and Generative AI
- ❖ Beta Microsoft Learn Student Ambassador | Microsoft (Oct'21- Jan'23)  
Full Stack Web Development, Software Development Life Cycle, Agile Development, Git and GitHub, Cloud Computing
- ❖ AI & ML Intern | Social Well (IT Company in Agri) (Dec'22- Mar'23)  
Worked with Python and Django REST Framework API, Extract, Transform, and Load (ETL) pipeline and ODK
- ❖ Open Source Contributor | GirlScript WoC (Aug'21- Dec'21)  
Python Backend Development, Open Source, Machine Learning

### NOTABLE ACHIEVEMENTS

- ❖ MITACS GRI'24 (prestigious fully funded global research internship)- University of British Columbia, Canada (QS World Rank 34)- AI, NLP, DL & Software Research Intern
- ❖ Two Merit Certificates (Top 3 students in the class), awarded for the year 2020-21 & 2021-22 at VIT
- ❖ Achiever Certificate awarded by VIT in 2021-22, for Outstanding Performance at National level Competitions
- ❖ Won several International Hackathons (Google AI Hackathon'24, HackNITP'21 NIT Patna, Access Denied'21 VIT Vellore, DoubleSlash'21 Jadavpur University)
- ❖ Scholar Badge by DPS Ruby Park School for Outstanding Academic Performance in 12th board CBSE examination

### PROJECTS

- ThingSenseAI- Multimodal Large Language Model Application & Wearable device powered by IoT for Personalized Health Assistance & Surveillance
- LifeAI- Multiple Disease Predictor Software using CNN, Genetic Algorithm, Ant Colony Optimization, Ensemble Machine Learning and Django
- Industrial Incident Reporting, Investigation & Management Software- Full Stack Web Software Development using Python Django and MSSQL
- ESG Software- Environmental, Social, Governance software using Full Stack Web Software Development Django and NLP
- GreenHouseGas Scope 1, 2, 3 Emission Calculator for industries- Full Stack Web Software Development using Streamlit Python
- KrishiSahayak- Full stack Web Application built using Django and MSSQL to connect all the stakeholders of the Agriculture system in India
- Patient Condition Prediction and Drug Recommendation- Using Flask, NLP, ML classification, Speech to text and sentiment analysis
- Fake Job Detection & Sentiment Analysis of Twitter- Using NLP and Machine learning
- HackX Website- The Hackathon website for IEEE SPS VIT Hackathon HackX 2021

### RESEARCH WORK & PUBLICATIONS

As an Undergraduate Researcher at VIT, I have undertaken 14 research works under guidance of some eminent professors. Some of the main research works are:

- Artificial Intelligence In Bringing A Revolution In The Healthcare Industry: A Review International Journal of Humanities, Science and Arts, Bodhi E-ISSN 2456-5571 January 2021
- DifEvoDenseFed: Differential Evolution Optimization Based DenseNet Federated Model in Alzheimer's detection 2023 International Conference on Next Generation Electronics (NEleX), Vellore, India, 2023, pp. 1-6, doi: 10.1109/NEleX59773.2023.10421357
- DenseFed-PSO: Particle Swarm Optimization based DenseNet Federated Model in Alzheimer's detection- Accepted 8th International Symposium on Intelligent Informatics (ISI'23) Springer SCOPUS SCI
- FedXAI-ISL: Explainable Artificial Intelligence based Federated Model in Indian Sign Language- Accepted International Conference on Innovative Computing and Communication (ICICC)'24 Springer SCOPUS SCI
- QueryMintAI: Multipurpose Multimodal Large Language Models for Personal Data - Under Review IEEE Access IF 3.9 SCI SCOPUS
- A Quantitative Model for Objective Evaluation of Quality of a Software Project- Under Review Software Quality Journal IF 1.9 SCI SCOPUS

### POSITION OF RESPONSIBILITY

- ❖ Technical Head | IEEE Women In Engineering, VIT Vellore (Jan'22 - Jan'23)
- ❖ Lead Organizer and Host | Technozare Gravitas'22; WEHack 3.0'22 IEEE WIE & HoneyWell; HackX'21 IEEE SPS & GitHub- VIT Vellore (Jul'21- Oct'22)

### COURSES & CERTIFICATIONS

- ❖ Software Engineering- JPMorgan Chase & Co.'s Software Engineering on Forage- [Link](#)
- ❖ Quantitative Research- JPMorgan Chase & Co.'s Quantitative Research on Forage- [Link](#)
- ❖ FinTech Engineering- Goldman Sachs's Software Engineering on Forage- [Link](#)
- ❖ Python Programming- Scaler- [Link](#)