# PRAGYA MISHRA

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### **EDUCATION**

### VELLORE INSTITUTE OF TECHNOLOGY

Chennai, TN Expected May 2025

Bachelor of Technology

Major in Computer Science; Specialization in Artificial Intelligence and Machine Learning

Cumulative GPA: 8.48/10

Relevant Coursework: Data Analysis Software Engineering Operating Systems Algorithms Artificia

Relevant Coursework: Data Analysis, Software Engineering, Operating Systems, Algorithms, Artificial Intelligence, Machine Learning, NLP, Deep Learning, Object-oriented Programming, Machine Vision, DBMS, IoT, Microprocessors and Microcontrollers, Compiler Design, Computer Organization and Architecture.

## DELHI PUBLIC SCHOOL, BANGALORE EAST

Class 12th CBSE Boards: 94.2% | Class 10th CBSE Boards: 94.8%

### **WORK EXPERIENCE**

### **CORIZO EDTECH**

Data Science Intern Aug 2023 – Oct 2023

- Developed an AI-powered cardiovascular disease prediction model, improving early diagnosis accuracy by 20%.
- Built a Spotify song genre segmentation system using ML, increasing classification precision by 15%.
- Optimized ML algorithms, demonstrating expertise in AI-driven analytics and predictive modeling.

# **PROJECTS**

## Automated System Validation & Performance Testing

- Developed a validation framework for software quality testing using Python & Shell scripting.
- Designed automated test cases to verify system performance, reliability, and security in Windows & Linux environments.
- Implemented emulation and platform-level testing to assess product specifications against competition.

## Trade Engine with Risk Assessment

- Developed a full-stack stock trading platform with real-time portfolio tracking.
- Integrated risk assessment algorithms, reducing portfolio losses by 25% through AI-driven investment strategies.

## **Diabetic Retinopathy Classification**

- Implemented Quantum Machine Learning (QML) with ConvNext and Vision Transformers (ViT), achieving 94% accuracy.
- Designed for real-world deployment in ophthalmology clinics to enhance early diagnosis

# Windows & Linux Application Debugging

- Investigated software failure points using debugging tools (GDB, WinDbg) in Windows & Linux environments.
- Implemented performance profiling techniques to optimize execution speed and memory usage.

# Healthcare Chatbot

- Designed an AI-powered, rule-based chatbot using if/then logic to provide instant responses to FAQs.
- Achieved 90%+ accuracy in providing medical guidance through an interactive, rule-based system.

# **ACTIVITIES**

## HEAD, MASTER OF CEREMONY COMMITTEE, VIBRANCE'24

- Hosted VIT Chennai's largest cultural fest (9,000+ attendees), receiving personal commendation from Shreya Ghoshal.
- Managed a team of 30+ members, ensuring seamless execution of events and audience engagement.

### CREATIVE HEAD, DRAMATICE CLUB

- Led VIT Chennai's Dramatics Club to win Best Social Club (2023) through strategic direction, event planning, and performances.
- Directed award-winning plays and boosted club revenue by 50% through increased social media engagement.

### TECHNICAL SKILLS

Programming: Python, C, C++, Java, SQL, MATLAB, Shell Scripting, Automation & Tools: Git, Jenkins, GitHub Actions, CI/CD Pipelines, Validation & Testing: Test Automation Frameworks, Software Quality Assurance, Performance Testing, Debugging, Operating Systems: Windows, Linux, ML: RAG systems, agentic AI, large language models (LLMs), multimodal AI, transformers, self-supervised learning, model interpretability (SHAP, LIME), federated learning, computer vision (CNNs, ViTs), generative AI (GANs, diffusion), MLOps, healthcare AI, Certifications & Training: Google Cloud Digital Leader, Google Cloud Computing Foundations, Spoken Tutorial (IIT Bombay) certified in C, C++, SQL, Java and PHP.