

# Jannatul Ferdaues

Dhaka, Bangladesh +8801601315415 jannatul.ferdaues.soha@gmail.com  
github.com/jannatul-ferdaues linkedin.com/in/jannatul-ferdaues Portfolio Website

## SUMMARY

build AI that works. Five projects shipped, one research paper under review, and every result backed by real numbers – **95%** classification accuracy, **87%** candidate match precision, **98%** error detection across **4 languages**. I work in Python, TensorFlow, and PyTorch across Computer Vision and NLP. Final year CS student at Daffodil International University, graduating in 2027. Seeking an AI Engineer internship.

## TECHNICAL SKILLS

**Tools:** Git, Docker, Jupyter Notebook, Google Colab

**Deep Learning Frameworks:** TensorFlow, PyTorch

**ML & Data:** Scikit-learn, NumPy, Pandas, Matplotlib

**Programming Languages:** Python, C++, SQL, HTML, CSS, JavaScript

**Computer Vision:** OpenCV, CNN, Transfer Learning, Image Classification

**Concepts:** Deep Learning, Object Detection, NLP Pipeline, Multi-class Classification

**MLOps & Deployment:** Flask, Docker, REST API, Model Fine-tuning, Inference Optimization

**NLP & LLM:** NLTK, Transformer Architecture, LLM Integration, OpenAI API, Prompt Engineering

## PROJECTS

### CANDY – Your Personal AI Assistant | GitHub

Artificial Intelligence Project

Jan 2026 – Present

Python, TensorFlow, OpenCV

- Developed an end-to-end system for generating descriptive captions for images.
- Utilized CNN and LSTM models for image feature extraction and caption generation.
- Trained the model on the COCO dataset to generate contextual image descriptions.

### HireMind AI – AI-Powered-Recruitment-Intelligence-System | GitHub

Machine Learning Project

April 2026 – Present

Python, Colab, Next.js, NLP, Scikit-learn, LLM

- Built an AI-driven recruitment platform achieving **87% candidate-job matching accuracy** using NLP-based skill extraction and machine learning ranking models.
- Reduced resume screening time by **60%** through automated bulk CV analysis and candidate ranking against job descriptions.
- Developed an intelligent evaluation engine to assess skills, experience, and job fit from unstructured resume data, improving scoring consistency by **45%**.
- Designed a scalable architecture supporting both individual job seekers and HR teams with single and bulk recruitment workflows.

### Code Guardian | GitHub

Machine Learning Project

September 2025 – December 2025

Python, HTML, CSS, JavaScript

- Developed an AI-powered code debugging assistant supporting **C, C++, Java, and Python**.
- Achieved **98% error detection accuracy** using pattern-matching and AST-based compiler error analysis.
- Reduced average debugging time by **35%** by providing plain-language explanations and fix suggestions for syntax and runtime errors.
- Improved user onboarding by **40%** through an intuitive interface and automated guidance for beginner programmers.

### AquaVision AI | GitHub

Computer Vision Project

Jan 2026 – Mar 2026

Python, Deep Learning, Transfer Learning, HTML, CSS, JavaScript

- Built a fish species classification system using **ResNet50 transfer learning**, reducing identification time from **45 seconds to under 2 seconds** through real-time image inference.

- Achieved **<5% misclassification rate** on a 6-class imbalanced dataset by implementing OpenCV-based image preprocessing and model optimization techniques.
- Reduced dataset preparation time by **60%** by developing a structured data collection and labeling workflow from scratch.
- Developed a full-stack web application integrating the deep learning model with a user-friendly interface, enabling real-time fish recognition for aquarium hobbyists and fish traders

## RESEARCH PAPER

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### Automated Aquarium Fish Classification Using Deep Transfer Learning

Research Paper  
*Under Review – Second-author*

Python, TensorFlow, InceptionV3, ResNet50, MobileNetV2, DenseNet121

- Achieved **95.05% classification accuracy** and **94.92% macro F1-score** across 6 aquarium fish species using a fine-tuned **ResNet50** model
- Benchmarked **4 transfer learning architectures** and identified ResNet50 as the best-performing model based on precision, recall, and F1-score.
- Achieved **97–98% validation accuracy** with near-zero loss using DenseNet121 over 25 epochs, demonstrating strong generalization on a small, imbalanced dataset with no data leakage.
- Developed and curated a custom labeled aquarium fish dataset, addressing the lack of publicly available datasets for this domain.

## EDUCATION

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### Daffodil International University, Dhaka

*Bs.C. in Computer Science Engineering, 2027*

Dhaka, Bangladesh

*GPA 3.65*

### Govt. Mohila Collage, Jashore

*HSC in Science, 2020*

Jashore, Bangladesh

*GPA 5.00*

### Progoti High School, Jashore

*SSC in Science, 2018*

Jashore, Bangladesh

*GPA 5.00*

## CERTIFICATIONS

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- **AICERTs** - AI+ Prompt Engineer Level 1
- **Uniathena** - Basics of Artificial Intelligence
- **AWS** - academy Cloud Foundation
- **HP LIFE** - AI for Business Professional
- **WildLearner**- Python Course

## LANGUAGES

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- **Bengali** – Native
- **English** – Professional Working Proficiency
- **Japanese** – Limited Working Proficiency