MUNTASIR ABDULLAH

AI / Machine Learning Engineer • Computer Vision & VLM Researcher • Full-Stack Software Developer

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Results-driven Computer Science & Engineering undergraduate with 4,000+ tracked coding hours, specializing in Computer Vision, Vision-Language Models (VLMs), large language models (LLMs), and Full-Stack Software Engineering. Lead Researcher of SVM-BSR (outperforming Gemini on Bengali handwriting recognition), 4x UIU Project Show winner (1x Champion, 3x Runner-Up), 3x Hackathon Finalist, and Team Leader of LunarX (2024 – Present).

EDUCATION

United International University (UIU), Dhaka, Bangladesh — **2024 – Present (Expected 2027)**

B.Sc. in Computer Science & Engineering (CSE) | **90 Credits Completed; 4.00 in all core & departmental CSE courses** — Student ID: 0112410445

RESEARCH & AI EXPLORATION

SVM-BSR: Structure-Aware Visual Modeling for Orthographically Complex Bengali Script Recognition | *Lead Researcher • 2026*

- **Script-Aware Architecture & Performance:** Engineered a ConvNeXt-Transformer visual sequence recognizer with Matra-Aware Attention, Grapheme Mixture-of-Experts, hybrid CTC-Attention decoding, and Self-Critical Sequence Training (SCST). Achieved 11.80% test CER on BN-HTRd, outperforming Gemini on Bengali handwriting recognition.
- **LLM, SLM & Vision-Language Model (VLM) Exploration:** Investigated cross-script token probability divergence on local Qwen 2.5 SLMs/LLMs (14B/32B), built a LangChain + TruthfulQA hallucination detection pipeline, and actively exploring multimodal Vision-Language Models (VLMs) for document understanding.

SOFTWARE ENGINEERING & CONTRACTUAL PROJECTS

- **KOLOMI — Smart Preschool E-Learning & Safe Media Software (Active Development | Team Leader, LunarX):** Actively engineering a full-scale preschool software ecosystem combining interactive Bangla, English, Math, GK, and Logic Puzzle modules, a 3D voice guide avatar, parental analytics, and a real-time 1v1 multiplayer quiz engine (Java TCP Sockets, React, Node.js, Python).
- **Nexus Legal Lab — Contractual Web & E-Commerce Platform (2026):** Delivered a contractual production web and WooCommerce platform for Nexus Legal Lab, managing full-stack WordPress customization, payment/service workflows, server configuration via cPanel/Hostinger, and performance optimization.
- **Amaar Bangladesh — Direct-to-Market Agricultural Supply Chain & Escrow Platform (Team Leader, LunarX | 2026):** Built a full-stack web platform with role-based access control (RBAC), real-time inventory/pricing workflows, and digital escrow tracking to connect farmers directly with retail buyers and eliminate middleman market manipulation.
- **Multi-Platform Social Media & Messaging Analytics Suite (Hackathon Finalist | 2026):** Built a real-time social integration and NLP analytics platform in a 24-hour sprint using Meta Graph API, whatsapp-web.js, React, Node.js, MongoDB, and Flask-served PyTorch models.

PROJECT SHOW & HACKATHON ACHIEVEMENTS

- **Champion — UIU CSE Project Show (Advanced Object-Oriented Programming Lab):** Awarded 1st Place among 400+ competing teams for leading the JavaFX desktop preschool learning software platform.
- **1st Runner-Up — UIU CSE Project Show (SVM-BSR Bengali Handwriting Recognition):** Recognized for structure-aware Bengali handwritten script recognition outperforming Gemini baselines.
- **1st Runner-Up — UIU CSE Project Show (Database Management Systems — Amaar Bangladesh):** Awarded 2nd Place overall for designing and implementing the Amaar Bangladesh agricultural supply-chain and digital escrow platform.
- **2nd Runner-Up — UIU CSE Project Show (System Analysis & Design — KOLOMI):** Honored for system architecture and prototype execution of the KOLOMI preschool smart operating environment.
- **3x Hackathon Finalist (2025 – 2026):** Selected as a top finalist across three university and national software/AI hackathons for rapid full-stack and AI prototyping.

TECHNICAL SKILLS

AI, CV, VLM & LLM	PyTorch, TensorFlow, Keras, OpenCV, Vision-Language Models (VLMs), LLMs/SLMs (Qwen 2.5), LangChain, Ollama, YOLO, CTC-Attention
Languages	Python, C, C++ (C++20), Java (JavaFX, TCP Sockets), JavaScript (ES6+), SQL, PHP, HTML5, CSS3, LaTeX
Full-Stack & Databases	React, Next.js, Node.js, Express.js, Django, Flask, Tailwind CSS, WordPress/WooCommerce, MySQL, MongoDB, Firebase, REST APIs
DevOps, Tools & Coding	Git/GitHub, Linux (Ubuntu), SSH, Cloudflare Tunnel, Vercel, cPanel, Overleaf, Figma | 4,000+ tracked coding hours (WakaTime)

LEADERSHIP & TEAMWORK

- **Team Leader — Team LunarX (2024 – Present):** Leading a multi-disciplinary CSE engineering and research team across 4 award-winning UIU Project Show builds, 3 hackathon finals, and active full-stack/AI product development including KOLOMI and SVM-BSR.