Pravakar Das

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Portfolio | **GitHub** | **LinkedIn**

Professional Summary

Software Developer specializing in backend engineering, full-stack development, and AI-driven solutions. Built 6+ projects including ERP, ML-powered attendance systems, and 3D interactive web platforms. Proficient in Python, JavaScript frameworks, Flask, React, Next.js, and modern deployment workflows. Strong problem-solving, teamwork, and adaptive learning skills.

Skills

- **Programming:** Python, JavaScript
- **Frameworks:** Flask, React, Next.js, Node.js, Three.js
- **Databases:** MongoDB, MySQL, MongoDB Atlas
- **Tools:** Git, Linux, Vercel, Render, YOLO
- **Specializations:** ML, Computer Vision, Web Development
- Problem Solving Analytical Thinking
- Communication Documentation
- Teamwork Collaboration
- Adaptability Rapid Learning
- Project Management Organization

Experience

Backend Developer (Intern / Freelance Projects)   *Jan 2025 – Present*
Remote / Personal Projects

- Developed modular backend services using Python, Flask, and Node.js, serving 20+ concurrent requests.
- Implemented secure REST APIs with JWT authentication and integrated with frontend applications.
- Collaborated on team projects via GitHub, managing version control and pull request reviews.

Projects

- **IntegraFlow**   **GitHub**
  Tech Stack: Next.js, Node.js, MongoDB, REST APIs, JWT Auth
  Enterprise-grade ERP system with role-based access, HR management, and automated workflows. Designed backend services to handle 100+ concurrent users efficiently.

- **Employee Attendance Portal**   **GitHub**
  Tech Stack: Python, Flask, OpenCV, Face Recognition, MongoDB
  Automated attendance management using facial recognition, real-time logging, and reporting for educational/office environments.

- **Auris**   **GitHub**
  Tech Stack: React, Node.js, Express.js, MongoDB, Firebase
  Full-stack hotel booking platform with real-time reservation handling, user authentication, and responsive UI.

- **Essential Tools**   **GitHub**
  Tech Stack: Python, Flask, PDF Libraries
  Privacy-focused web app for PDF merging, splitting, compression, and format conversion with local-first processing.

- **HostCast**   **GitHub**
  Tech Stack: Python, Socket Programming, LAN Networking
  High-performance LAN file sharing with low-latency screen sharing and real-time communication.

- **Arena Strike**   **GitHub**
  Tech Stack: Python, OpenGL, MediaPipe
  3D cannon-defense game with gesture-based controls, leveraging computer vision for immersive interaction.

Activities & Competitions

BRAC University Computer Club (BUCC)   *2023 – 2024*
Member contributing to technical and organizational activities.

NASA Space Apps Challenge 2024 *October 2024*
Developed 3D AI-driven solar system visualization platform integrating NASA APIs with interactive VR features.

Research Publications

AP-GAN: Attention PatchGAN for Low-Light Underwater Image Enhancement

- Developed GAN-based architecture for underwater image enhancement using attention-driven patch correction.
- Improved low-light image quality significantly for marine and scientific imaging applications.

Research Interests

- Computer Vision Image Enhancement
- Generative Adversarial Networks (GANs)
- Applied Machine Learning
- AI for Real-World Systems

Certifications

- **MLOps Fundamentals** — datacamp
- **AI in Office Administration** — udemy
- **Comprehensive Web Development: HTML5, Python, Flask** — udemy

Education

B.Sc. in Computer Science *2022 – 2025*
BRAC University, Dhaka, Bangladesh — CGPA: 2.8/4.0
Relevant Courses: Machine Learning, Data Structures, Web Development, Software Engineering
Higher Secondary Certificate (Science) *2020 – 2022*
Islamia Degree College, Chattogram, Bangladesh — GPA: 4.93/5.0
Secondary School Certificate *2012 – 2018*
Hazi Md. Mohsin Govt. High School, Chattogram, Bangladesh — GPA: 4.84/5.0

Languages

- English – Professional Proficiency
- Bengali – Native

References

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