

NISHI KANTA PAUL

 nishikantapaul108@gmail.com  +8801767705861  Sylhet  Paul72  Paul72  Portfolio

Education

B.Sc. in Computer Science and Engineering,
Ahsanullah University of Science and Technology
CGPA: **3.749** out of 4.00 (7th out of 100)

2020 – 2024

Dhaka, Bangladesh

Teaching Experience

Competitive Programming Mentor(Remote), Shohoj Coding 09/2024 – present
Taught topics such as Graph Theory, Number Theory, and Data Structures.

Research Experience

Voluntary Researcher – AI in Healthcare (Remote) 02/2025 – present
AI-Driven Parkinson's Disease Screening System
University of Alabama at Birmingham & Temple University

- Designing ML pipelines for voice-based Parkinson's detection
- Conducting signal processing and feature extraction using Python (Scikit-learn, PyTorch)
- Integrating **Large Language Models (LLMs)** to enhance automated medical interpretation and reporting

AI & ML Project

NeuroSight: AI-Powered Brain Tumor Detection

Technologies: Python, TensorFlow, Keras, Flask

- Built a CNN-based web app (VGG16) to detect brain tumors from MRI scans with high-confidence predictions
- Deployed model via Flask and ensured a seamless frontend-backend integration

PDF Insight Chatbot

Technologies: Python, Flask, Ollama, SentenceTransformers, PyMuPDF

- Created a semantic search-driven chatbot that answers questions from user-uploaded PDF documents
- Integrated local LLMs and vector embeddings for accurate, context-aware responses

Quizzify – AI Interview Question Generator

Technologies: Python, Flask, Ollama, LLMs (Phi/Mistral)

- Developed an AI-powered web app that generates technical interview questions based on job roles
- Used local LLMs with customizable difficulty and markdown export

Publications

Video-based Driver Distraction Detection using Transfer Learning: Bangladesh Perspective (Published) 
International Conference on Advances in Computing, Communication, Electrical and Smart Systems 2024

Comparative Analysis of Hybrid Deep CNN Models in the Classification of Pulmonary Diseases (On going research)

Industry Experience

Software Engineer-I, Brain Station-23

03/2025 – present

Project: ObhaiVTS (Vehicle Tracking System)

Dhaka, Bangladesh

- **Hub Management:** Built filterable, paginated tables with create/update forms (React Hook Form) and real-time API integration via TanStack Query.
- **SIM/Device/Technician/Vehicle Management:** Developed CRUD flows with Zustand-based state management and seamless API sync.
- **Package Management:** Implemented add/update/delete operations with optimized data handling.
- **Admin Dashboard:** Designed sidebar & reusable UI components (table, modal, filter, pagination) using Tailwind + Shadcn for a cohesive dashboard experience.

Skills

Programming Languages

Python, C++, C, C#, Java, JavaScript, TypeScript, HTML, CSS, PHP

AI/ML Libraries & Tools:

Scikit-learn, PyTorch, TensorFlow, Keras, Transformers, OpenCV, Pandas, NumPy, Matplotlib, LangChain, NLTK, spaCy

Web & Frameworks:

React, Next.js, Node.js, Express, Redux, ASP .NET MVC, Flask, JavaFX

Databases

MySQL, MongoDB, Firebase, MS SQL Server

Tools

Git, GitHub, Linux, Postman, LaTeX, Jupyter Notebook, Google Colab, Hugging Face

Competitive Programming

Profiles: Codeforces [🔗](#) | CodeChef [🔗](#) | LeetCode [🔗](#) | Toph [🔗](#) | StopStalk [🔗](#)

Programming Contests

- **ICPC Asia Dhaka Regional Contest 2023** [🔗](#) – **Rank: 116th** (Team: AUST_Tactless)
- **Intra AUST Programming Contest – Spring 2022** [🔗](#) – **Rank: 1st** (Team: AUST_Durnibar)

Software Developments

EduHub44 [🔗](#)

EduHub44 is an educational website developed in PHP, HTML, CSS, and Bootstrap 5 integrated with MySQL.

PersonalDiary [🔗](#)

PersonalDiary is a Desktop application developed in JavaFx and MySQL.

SnapShop-Customer [🔗](#)

Developed a responsive e-commerce platform using React, TypeScript, Tailwind CSS, and Context API with features like product browsing, cart/wishlist management, authentication, multilingual support, and payment integration.

References

Forhad An Naim, Staff Engineer I (Chief Engineer), Samsung R&D Institute Bangladesh
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Mr. Mohammad Moinul Hoque, Associate Professor, Ahsanullah University of Science and Technology
moinul@aust.edu, 01817579779