

# Nishi Kanta Paul

 Paul72 |  Paul72 |  Portfolio |  nishikantapaul108@gmail.com |  +880 176 770 5861

## EDUCATION

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### 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

### Higher Secondary Certificate (HSC)

*Sylhet Government College*

GPA: **5.00** out of 5.00

2017 - 2019

Sylhet, Bangladesh

### Secondary School Certificate (SSC)

*Boiragi Bazar High School*

GPA: **4.67** out of 5.00

2014 - 2016

Sylhet, Bangladesh

## INDUSTRY EXPERIENCE

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### Software Engineer-I, Brain Station-23 PLC

Mar 2025 - present

#### ObhaiVTS – Frontend Engineer

*Technologies: React, Tailwind CSS, Shadcn, Zustand, TanStack Query*

- Enhanced data handling efficiency by 30% through server-side pagination and dynamic filtering
- Improved application responsiveness and real-time updates via TanStack Query integration
- Reduced UI inconsistencies by 20% with centralized Zustand state management

#### OneID – Client Portal (Django Admin)

*Technologies: Django, Keycloak*

- Increased admin efficiency by 25% through real-time analytics dashboard implementation
- Reduced document processing errors by 20% via optimized upload workflows and status tracking
- Secured user sessions with Keycloak-compliant authentication and logout mechanisms

#### OneID – Backend Engineer

*Technologies: FastAPI, PostgreSQL JSONB, Keycloak*

- Accelerated document processing speed by 35% through PostgreSQL JSONB metadata system implementation
- Reduced invalid submissions by 30% with comprehensive NID validation logic
- Implemented Keycloak encryption protocols to secure sensitive user data

## TEACHING EXPERIENCE

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### Adjunct Lecturer, Department of CSE

Jan 2026 - present

*International Standard University, Dhaka*

- Teaching Robotics, IoT, and Competitive Programming courses to prepare students for industry standards
- Designed hands-on laboratory exercises and projects to enhance student employability
- Developed comprehensive course materials aligned with contemporary technological trends

*Shohoj Coding*

- Mentored 50+ students in advanced topics including Graph Theory, Number Theory, and Data Structures
- Increased student contest performance by 30% through targeted practice sessions and problem-solving strategies
- Designed structured curriculum and practice sets for skill progression

## RESEARCH EXPERIENCE

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**Voluntary Researcher – AI in Healthcare (Remote)**

Feb 2025 - present

- **AI-Driven Parkinson's Disease Screening System** - University of Alabama at Birmingham & Temple University
- Designing machine learning 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 PROJECTS

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**NeuroSight: AI-Powered Brain Tumor Detection**[GitHub](#)*Technologies: Python, TensorFlow, Keras, Flask*

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

**PDF Insight Chatbot**[GitHub](#)*Technologies: Python, Flask, Ollama, SentenceTransformers, PyMuPDF*

Offline PDF chatbot that uses local LLMs and semantic search to answer questions from uploaded PDF documents via web or CLI interface.

**Quizzify – AI Interview Question Generator**[GitHub](#)*Technologies: Python, Flask, Ollama, LLMs (Phi/Mistral)*

Offline AI-powered web application that generates role-based technical interview questions using local LLMs, with Markdown export and difficulty-level selection.

## SOFTWARE DEVELOPMENT PROJECTS

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**LibLMS: Library Management System**[GitHub](#)*Technologies: React, Tailwind CSS, ShadCN UI, PHP*

A full-stack library management system with book borrowing, return tracking, PDF downloads, reviews, user notifications, and advanced search functionality.

**Restaurant Admin Panel**[GitHub](#)*Technologies: Next.js, PrimeReact, Tailwind CSS*

A responsive admin panel for restaurants with real-time menu and order management, form validation, and efficient state handling.

**SnapShop-Customer**[GitHub](#)*Technologies: React, TypeScript, Tailwind CSS, Context API*

A responsive e-commerce platform supporting product browsing, cart/wishlist, multilingual UI, authentication, and payment integration.

## PUBLICATIONS

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### Video-based Driver Distraction Detection using Transfer Learning: Bangladesh Perspective



*Md. Muhaiminul Kabir, Md Abrar Nawar, Mehedi Islam Remon, **Nishi Kanta Paul**, Hanif Bhuiyan, Md Moinul Hoque*

*International Conference on Advances in Computing, Communication, Electrical and Smart Systems (iCACCESS), 2024*

## COMPETITIVE PROGRAMMING

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

- [ICPC Asia Dhaka Regional Contest 2023](#) - Rank: 116th (Team: AUST\_Tactless)
- [Intra AUST Programming Contest – Spring 2022](#) - Rank: 1st (Team: AUST\_Durnibar)

## SKILLS

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<b>Programming Languages</b>	Python, C++, C, C#, Java, JavaScript, TypeScript, HTML, CSS, PHP
<b>AI/ML Libraries &amp; Tools</b>	Scikit-learn, PyTorch, TensorFlow, Keras, Transformers, OpenCV, Pandas, NumPy, Matplotlib, LangChain, NLTK, spaCy
<b>Web &amp; Frameworks</b>	React, Next.js, Node.js, Express, Redux, ASP.NET MVC, Flask, Django, FastAPI, JavaFX
<b>Databases</b>	MySQL, PostgreSQL, MongoDB, Firebase, MS SQL Server
<b>Tools</b>	Git, GitHub, Linux, Postman, LaTeX, Jupyter Notebook, Google Colab, Hugging Face, Keycloak

## REFERENCES

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### Forhad An Naim

*Staff Engineer I (Chief Engineer)*

*Samsung R&D Institute Bangladesh*

Email: [developermithun1990@gmail.com](mailto:developermithun1990@gmail.com)

Phone: 01675584888

### Mr. Mohammad Moinul Hoque

*Associate Professor*

*Ahsanullah University of Science and Technology*

Email: [moinul@aust.edu](mailto:moinul@aust.edu)

Phone: 01817579779