**Portfolio**

**Name : Arka Braja Prasad Nath**

**Contact :**

**github (**[**https://github.com/AriyaArKa**](https://github.com/AriyaArKa)**)**

**kaggle: (**[**https://www.kaggle.com/arkaariya**](https://www.kaggle.com/arkaariya)**)**

**linkdin: (**[**https://www.linkedin.com/in/arka-nath55/**](https://www.linkedin.com/in/arka-nath55/)**)**

**Educational qualification**

1. **Bachelor of Science in Computer Science & engineering**

Khulna University of Engineering & Technology (KUET)

2023 - Present

1. **Higher Secondary Certificate (HSC)**

Engineering University School & College, Dhaka

Group : science

Gpa : 5.00/5.00

Year:2021

1. **Secondary School Certificate(SSC)**

Motijheel Govt. Boys' High School, Dhaka

Group:science

Gpa:5.00/5.00

Year:2019

**Skills**

**Programming Languages**

* C, C++, Java, JavaScript, Python, PHP, Dart, C#, SQL, HTML, CSS

**Frontend Development**

* HTML5, CSS3, JavaScript, Bootstrap, React.js, jQuery, AJAX

**Backend Development**

* Node.js, Express.js, Flask, Laravel, ASP.NET

**Mobile App Development**

* Android Studio (Java/Kotlin), Flutter (Dart)

**Desktop App Development**

* JavaFX, ASP.NET

**Game Development**

* Unity Game Engine (C#)

**Databases**

* MySQL, MongoDB, Firebase Realtime DB, SQL Server (SSMS)

**Machine Learning & AI**

* TensorFlow, PyTorch, Keras, Scikit-learn, OpenCV, MediaPipe, YOLOv8, SpaCy, NLTK, CNN

**Data Science & Analysis**

* NumPy, Pandas, Matplotlib (optional if used)

**Tools & Platforms**

* GitHub, GitHub Pages, VS Code, Android Studio, Jupyter Notebook, Google Colab, VirtualBox, Arduino IDE, Cisco Packet Tracer,LINUX

**Design & Prototyping**

* Figma, Canva, Adobe Illustrator

**Achievements**

**Datathon**

**KUET Rising Star - BITFEST 2025 19th among 150 teams on Leaderboard**

**Certificates : will be attached here**

**Photos : will be attached here**

**Case Study**

**Second Runners-up of Biz Bash- 3.0 arranged by KUET CARRER CLUB**

**Battle Of Minds (2024) (Second Round)**

**Contest Programming**

**Twenty Fifth position at Intra KUET Programming Contest (IKPC) arranged by SGIPC,**

**Kaggle Competition**

* **Digit Recognizer - Kaggle Competition: Ranked 61st out of thousands of participants**
* **Details: Worked on building and optimizing a machine learning model to classify handwritten digits from the MNIST dataset, achieving top 100 placement in this highly competitive challenge.**
* **Tools & Technologies: Python, TensorFlow, Keras, Scikit-learn, Jupyter Notebook**
* **Link to Kaggle Profile (if available)**

**Volunteering**

**Best Volunteer of HULT PRIZE at KUET -2024**

**EXTRACURRICULAR ACTIVITIES**

* 1. Senior Executive

KUET Business and Entrepreneurship Club - KBEC

* 1. Sub Autonomous-Trainee

Team DURBAR - a team of university students designing, fabricating, and testing the next generation of Mars rovers right here in KUET

* 1. Design Member Bit to Byte - a software Research & Development Community of KUET

**pEROSONAL PROJECTS**

1. [**Android-Ball-Bounce-game**](https://github.com/AriyaArKa/Android-Ball-Bounce-game)**Public**

**An android ball bouncing game made with UNITY game engine. A ball touches wall and a moving paddler if it misses paddler then game over.**

1. [**AI-Chabot**](https://github.com/AriyaArKa/AI-Chabot)**Public**

**Virtual AI Assistant (Doctor) – Chat App using LLaMA 3 API**

1. [**Music-Recommendation-System**](https://github.com/AriyaArKa/Music-Recommendation-System)**Public**

**Music Recommendation System using NLP**

1. [**Plant-Disease-Detection-App**](https://github.com/AriyaArKa/Plant-Disease-Detection-App)**Public**

**A beginner level plant disease detection model. It primary works for 3 diseases which is Corn(maize)Common\_rust, Potato\_Early\_blight and TomatoBacterial\_spot**

**Graphics & Design Work**

FAcebook poster design

Previous club works – 5 photo will be ADDED

**Hackathon Event Poster**

**Tool:** Adobe Illustrator  
Poster created for the annual university hackathon.

**bANNER DESIGN**

**some will be add later**

**Outsourcing Projects**

**📚 BookStoreApp – Windows Forms Inventory Manager**

A C#-based Windows Forms app designed to manage bookstore inventory with SQL Server backend. It allows users to add, view, and print book records efficiently, with input validation and auto-generated Book IDs.

**🛠 Key Features:**

* Add, view, and print books (with title, author, year, price, format)
* Input validation and auto-incremented Book IDs
* Generate printable reports sorted by book title

**💻 Tech Stack:**

* **Frontend:** C# (Windows Forms), .NET Framework
* **Backend:** SQL Server Express, ADO.NET
* **Development Tools:** Visual Studio 2022, SSMS, RDLC Reporting

Virtual BOX

**pfSense & Ubuntu LAN Firewall in VirtualBox**

Set up a **LAN firewall** using **pfSense** on **Ubuntu** running in **VirtualBox**. This project involved configuring network interfaces, setting up routing, and securing a local network by controlling incoming and outgoing traffic through the firewall.

**🛠 Key Features:**

* Configured **pfSense** as a firewall on a virtual machine running **Ubuntu** in VirtualBox
* Set up routing and network interfaces to manage traffic between multiple virtual networks
* Created firewall rules for securing and controlling access to LAN resources
* Implemented **NAT** and **VPN** settings for secure remote access
* Enabled logging and monitoring for network traffic analysis

**💻 Tech Stack & Tools:**

* **VirtualBox**: Virtual machine management
* **pfSense**: Firewall and routing configuration
* **Ubuntu**: Linux operating system for the virtual environment
* **LAN Configuration**: Static IP assignment, network segmentation

rkmukesh grok