NAYMUL HOSSAIN

n5hossai.github.io/portfolio — naymulhossain21@gmail.com — in/nay — github.com/n5hossai — (+1) 289 668 8130

Skills

- Tools & Languages: R, Python, SQL, MongoDB, MATLAB, Git, Docker, C++, C, Java, Jupyter
- Frameworks & Libraries: Numpy, Keras, Tensorflow, Matplotlib, Pandas, Scikit-Learn, Kafka
- Coursework: Computational Statistics & Data Analysis, Applied Linear Models, Computational Inference, Sampling & Experimental Design, Data Types & Structures, Object-Oriented Software Development, Computational Linear Algebra, Databases

Education

University of Waterloo Sept '17 – Aug '21

Major: *Bachelor of Mathematics, Honours Computational Mathematics*

Minors: ⋆ *Statistics* ⋆ *Computer Science* ⋆ *Combinatorics & Optimization*
Award : *University of Waterloo President's Scholarship of Distinction*

Experience

icddr, b
Software Engineering Intern (Data Analyst) June – Aug '18

- Trained **Azure's CNTK model** over **10,000** satellite images to classify land covers, optimizing medical camps' locations nearest to the population living in remote areas of Bangladesh

bKash Limited
Software Engineering Intern (Full Stack Developer) May – Aug '19

- Trained a conversational agent with **Dialogflow**, both in English and Bengali, for a population of **28 million** active users and integrated Facebook's SDK, to automate the customer services
- Developed Messenger's WebView with **React JS**, to implement bKash USSD **API** securely using **Node.js** in the backend, increasing financial transaction efficiency by **15%**

University of Waterloo
Computer Science & Mathematics Tutor Sept – Dec '19

- Tutored university athletes up to 3^{rd} year level of Computer Science and Mathematics courses

Projects

Protein-Fold ·Built a model to determine protein structure using **K-fold Cross-Validation**
·Delivered a **97%** accuracy, with **MSE** & **RMSE** supporting the findings

Digit Classifier ·Built a model to determine handwritten digits, implementing **Tensorflow**
·Three convolution and three connected layers were used to create the **DNN**
·The test loss was 0.0609, and validation accuracy was 0.9826 after 5 epochs

Stratego · Implemented a multiplayer functionality game engine with interactive graphics
· Applied object oriented **C++** principles, systematized with design patterns

VersionSway ·Built a version-controlling system using object oriented **C++** principles

- **TCP-Socket** ·Created a **TCP Socket** program, in a client-server environment for file transfers

EXTRACURRICULAR ACTIVITES

- ⋆ University of Waterloo Bengali Student Association, President Jan – Apr '19
- ⋆ StarterHacks, Development Mentor Jan '20