

NAYMUL HOSSAIN

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

SKILLS

- **Languages:** Python, C++, C#, Perl, Typescript, Go, Java, C, R, MATLAB, Bash, SQL
- **Tools:** Git, Docker, AWS, Agile, Jira, Jenkins, Postman, Apache, Dialogflow
- **Frameworks & Databases :** Angular, React, Express, Node.js, Spring Boot, MongoDB

EXPERIENCE

Navblue, an Airbus Company

Software Developer (Optimization, AI and ML Chapter)

Apr 2022 – Present

Managed AWS infrastructure, streamlined crew scheduling, coordinated deployment pipelines

- Developed crew scheduling algorithms leveraging Mixed Integer Linear Programming in C++
- Optimized flight crew pairing software by 10% using code profiling in a C# .NET desktop app
- Created an interface to access knowledge bases in Confluence and Google Docs using LLM
- Preprocessed documents into manageable chunks using Amazon EC2, optimizing cost
- Tokenized documents with AWS Bedrock's embedding model and stored vectors in AWS S3
- Implemented a pipeline to dynamically update the vector database with new embeddings
- Applied Retrieval Augmented Generation for contextual inferences from user queries
- Utilized API Gateway to route API requests for frontend and product integration
- Enhanced operational efficiency through seamless integration and validation with Postman
- Executed database operations with Perl & SQL, orchestrated deployments with Jenkins & Docker

Competers Inc.

Software Engineer (Full-Stack Engineer)

Aug 2022 – Dec 2022

Transformed microservices using AWS serverless framework, reducing cost by improved scalability

- Engineered new features in a Node.js environment with Angular for the front-end
- Implemented Express.js for the back-end, resulting in a 14% increase in user engagement
- Restructured SOAP microservices to REST APIs with .NET framework
- Utilized Test-Driven Development to enhance system efficiency and reduce errors
- Optimized costs using microservices as AWS Lambda functions, achieving scalability

bKash Limited

Software Engineering Intern (Backend Engineer)

May 2019 – Aug 2019

Designed secure RESTful APIs with integrated conversational agent for customer satisfaction

- Implemented secure authentication with Django, ensuring user data privacy and access controls.
- Integrated Dialogflow bot via Facebook SDK, using AWS ElastiCache for enhanced engagement

EDUCATION

University of Waterloo

Sep 2017 – Aug 2021

Bachelor of Mathematics, Honours Computational Mathematics

Minors: Statistics, Computer Science, Combinatorics & Optimization

CERTIFICATIONS

AWS CCP | Supervised Machine Learning | Django | MEAN Stack (Angular, Node.js)

PROJECTS

- **Post Feed:** A social media feed with MEAN stack hosted on AWS EBS
- **Daily Taskmate:** A task manager app built with Django REST framework, deployed on Heroku