ABU HASNAT ABDULLAH

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SUMMARY

Experienced Senior Software Engineer adept in project leadership, AI, and web development. Proven track record of driving complex projects for top-tier companies, supported by extensive academic achievements and interested in Behavioral Economics. Elevate your team to unprecedented levels of innovation and success with my expertise.

SKILLS

- **Language** Python, SQL, JavaScript, HTML, CSS
- **Web** Django, REST API, FastAPI, Micro-services, SaaS, Message Broker, Redis
- **Database** PostgreSQL, MongoDB, VectorDB (PGVector, Chroma)
- **AI** Generative AI, LLM, OCR, TensorFlow, PyTorch, Pandas, NumPy
- **Build** Docker, CI/CD, AWS (Lambda, EC2, ECS, S3, RDS)
- **Others** Data Science, Project Management, System Design, Agile methodologies

WORK EXPERIENCE

Senior Software Engineer | Cefalo Bangladesh Ltd. 🔗   **Nov'24 - Current**

- Building scalable ML solutions to unlock value from industrial time series data. Specializing in anomaly detection, predictive analytics, and MLOps, I develop AI-driven insights for business transformation.

Projects:

▸ **Unity Data Explorer:** developed LLM powered SAAS based data explorer.
  Tech: LLM, OpenAI, FastAPI, Neo4j, Pandas, InfluxDB, SaaS, Azure

▸ **Unity-MLOps:** Detecting Anomalies from time series data produced by aqua sensors.
  Tech: FastAPI, Python, scikit-learn, AzureML, Mlflow.

Senior Software Engineer | Strativ AB 🔗   **Apr'21 - Jan'24**

- Led a team of 11 people in managing 6 complex projects for prestigious Swedish companies, balancing project management, system design, backend coding (Python, Django), and code review.

Projects:

▸ **TourGPT:** a SaaS AI chatbot that utilizes a custom knowledge base, offers personalized tour suggestions, and ensures seamless order management.
  Tech: LLM, OpenAI, Django, PostgreSQL, PGVector, SaaS, AWS

▸ **Investment Management System:** managing portfolio companies' performance, sales, and accounting, integrating third-party data seamlessly.
  Tech: Django, RestAPI, PostgreSQL, SAAS, Kafka, AWS

▸ **Health Check:** provide primary digital healthcare support based on essential health metrics ex. Physical measurement and Blood test report from the third-party lab via API.
  Tech: Django, RestAPI, PostgreSQL, Kafka, NumPy, AWS

Software Engineer | Circle Fintech Ltd 🔗   **Sep'20 - Apr'21**

- Developed Boarding Bay, an eKYC system for Jamuna Bank, modernizing customer onboarding and managing business financial transactions.

Projects:

▸ **Boarding Bay:** developed 3 microservices for Boarding Bay: NID OCR, Face detection, and Billing, enhancing data processing and customer interactions for Boarding Bay.
  Tech: FastAPI, Flask, Django, RestAPI, Microservices, TensorFlow, PyTorch, Pandas, NumPy

Junior Research Analyst | Economic Research Group 🔗   **Apr'20 - Aug'20**

Projects:

- ▸ **Data Analysis:** Analyzed Romoni (an on-demand beauty service provider) mobile app's data, to draw meaningful insights and drive sales growth and forecasting sales.
  Tech: Python, PyTorch, Numpy, Pandas, Matplotlib, Regression

Research Assistant | North South University 🔗   **Jan'20 - Feb'20**
- • Developed the-Waves web application to publish research articles. (the-waves.org🔗)
- • Investigated on provided topics of Technology, Innovation, and Policy.

CEO & Founder | Shikhte Chai   **Apr'16 - Jan'19**
- • Founded and led Shikhte Chai, Bangladesh as CEO, driving organizational growth and strategic vision.
- • Pioneered impactful educational initiatives, empowering individuals with essential knowledge and skills.

RESEARCH

Predicting the Result of a Cricket Match by Applying Data Mining Techniques 🔗   **2020**
- • Recursive Feature Elimination, ZeroR, Decision Tree, Random Forest, and XGBoost have been applied.

EDUCATION

BS in Computer Science & Engineering | North South University, Bangladesh 🔗   **2015 - 2019**
- • **CGPA:** 3.07 (out of 4)
- • **Courses:** Artificial Intelligence, Pattern Recognition and Neural Networks, Data Structures, Design and Analysis of Algorithms, Probability and Statistics, Calculus, Micro-Economics

RECENT CERTIFICATIONS

Data Science | Prof Jennifer Widom (Stanford University) 🔗   **2024**
- • Covering data manipulation and analysis, Machine learning: regression, classification, clustering, Data mining, and data visualization using Tableau, Python & R

Behavioral Economics In Action | University of Toronto (edx)   **2022**
- • covering decision-making principles, experimental design, and applying nudges to influence behavior.

Business Analysis & Prototyping | LICT & BracIT 🔗   **2019**
- • a 3-month course by Bangladesh Govt (LICT) and BracIT, covering topics like requirements analysis, strategic planning, design thinking, process improvement, and stakeholder communication.

PERSONAL PROJECTS

1. **Customized Universal AI chatbot:** Developed an AI chatbot tailored with OpenAI for versatile applications, custom knowledgebase for each user, and fine-tune their model.
   Tech: LLM, OpenAI, Django, PostgreSQL, PGVector, SaaS, AWS

2. **Smart College Management with Biometric Attendance:** offering features like probabilistic student performance analysis, absence notifications, result tracking, fee management, report card generation, ID card creation etc.
   Tech: Django, RestAPI, PostgreSQL, Async IO, Kafka, Redis, AWS

3. **Open Organization - Transparent & Traceable Donation Raise** 🔗**:** Developed a platform for transparent and traceable donation raising, complete with an accounting system.
   Tech: Django, PostgreSQL

4. **KO - Bangla Programming Language** 🔗**:** Developed a programming language in Bangla, enhancing accessibility for native speakers and Childs, written in Python and has its own Syntex.
   Tech: Python

5. **Terrorist Attack Success Prediction** 🔗**:** Created a machine learning model to predict the success of terrorist attacks by collecting data from Kaggle. We got 92.6% accuracy by ensemble learning- Random Forest.
   Tech: Python, Pandas, sklearn, matplotlib, SVM, Random Forest, ANN, XGBoost