A K M Shahariar Azad Rabby

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https://shahariarrabby.github.io

Career Objective

I am a diligent individual who is self-taught in Machine Learning & Deep Learning, have experiences in creating advance analytics strategy using data & building intelligent machine with creative interfaces & experiences. My experience is a mix of two years in academia doing research in AI, machine learning, & data science. I am passionate about social innovation & about multidisciplinary approaches. I believe no problem is beyond human inventiveness.

Employment History

2019 Oct – Current
Software Engineer-Machine Learning. Apurba Technologies, Dhaka, Bangladesh. apurba.com.bd
- Research & development of Bangla OCR system.
- Working with team on design, development & integration of image processing.
- Experience with performance analysis, optimizations & benchmark evaluations.

2019 Jan – Current
Lecturer, Computer Science & Engineering, Daffodil International University, Dhaka, Bangladesh. *(Part-time position).* diu.edu.bd
- Deliver lectures & tutorials for Artificial Intelligence with lab (cse 412, 413L).
- Develop & implement new methods of teaching to reflect changes in research.

2017 Oct – Current
Sr. Research Scientist (Computer Vision & AI Initiatives). DIU NLP & Machine Learning Research Lab. nlp.daffodilvarsity.edu.bd
- Write, publish & present research in high-quality, peer-reviewed journals.
- Supervise students' research activities, including final year undergraduate projects.

2019 Apr – 2019 Oct
Developer-AI. Genex Digital. Dhaka, Bangladesh. genex.digital
- Worked on NLP to find the pattern in given data with more efficiently.
- Experience with different ChatBot platform to build AI base CSR for clients.

Education

2018
B.Sc. in Computer Science & Engineering, Daffodil International University, Dhaka, Bangladesh. 148 credits toward a Bachelor's degree in Computer Science and Engineering. Thesis title: *Ekush: Bangla Handwritten Character Data Repository for NLP Research.*

2014
HSC, Science, Cantonment Collage Cumilla, Cumilla Cantonment, Bangladesh.

2012
SSC, Science, Muslim Modern Academy, Dhaka Cantonment, Dhaka, Bangladesh.

Nanodegree & Certificates

- **Self Driving Car Engineer Nanodegree Program, Udacity.**
- **Deep Learning Nanodegree Program, Udacity.**
- **Computer Vision Nanodegree Program, Udacity.**
- **Deep Learning Specialization.** deeplearning.ai, Coursera.
- **Machine Learning** Stanford Online, Coursera.
- **TensorFlow in Practice Specialization.** deeplearning.ai, Coursera.
- **Learning How to Learn.** McMaster University & University of San Diego, Coursera. Check more Nanodegree & Certificates: shahariarrabby.github.io/certification

Projects

- **Ekush,** shahariarrabby.github.io/ekush
  - Largest dataset of handwritten Bangla characters & digits.
  - 673,482 character instances & 242 character class
  - 340,243 female & 333,239 male data.
  - 4 caption per image, include variety of the district, age group.

Projects (continued)

- **Programming a Real Self-Driving Car** github.com/ShahariarRabby/CarND_Capstone
  - » Perception subsystem detects traffic lights & obstacles.
  - » Planning subsystem updates the waypoints & the associated target velocities.
  - » Control subsystem actuates the throttle, steering, & brake to navigate the waypoints with target velocity.
- **GYMX**, gymxx.herokuapp.com
  - » Online gym management tool build with Laravel.
  - » Digitalized the system including online payment, task, chat & alert etc.
- **ISHARA-LIPI** isharalipi.sanzidscloud.com
  - » First multipurpose characters & digits dataset for Bangla Sign Language(BdSL).
  - » 1,800 images of 36 classes.

Selected Publications

1. Rabby, A. K. M. S. A., Haque, S., Islam, M. S., Abujar, S., & Hossain, S. A. (2019). Ekush: a multipurpose and multitype comprehensive database for online off-line bangla handwritten characters. In K. C. Santosh & R. S. Hegadi (Eds.), *Recent trends in image processing and pattern recognition* (pp. 149–158). Singapore: Springer Singapore.
2. Rabby, A. S. A., Haque, S., Abujar, S., & Hossain, S. A. (2018). Ekushnet: using convolutional neural network for bangla handwritten recognition. *Procedia Computer Science*, *143*, 603–610. 8th International Conference on Advances in Computing & Communications (ICACC-2018).
3. Rabby, A. S. A., Haque, S., Shahinoor, S. A., Abujar, S., & Hossain, S. A. (2018). A universal way to collect and process handwritten data for any language. *Procedia Computer Science*, *143*, 502–509. 8th International Conference on Advances in Computing & Communications (ICACC-2018).
4. Sanzidul, I., Mousumi, S. S. S., Jessan, N. A., Rabby, A. K. M. S. A., & Hossain, S. A. (2018). Ishara-lipi: the first complete multipurposeopen access dataset of isolated characters for bangla sign language. In *2018 international conference on bangla speech and language processing (icbslp)* (pp. 1–4).

Read more publications here: shahariarrabby.github.io/publication or Google Scholar

Skills

Coding	Python, C, PHP, SQL,HTML, CSS, SASS, JavaScript, LaTeX.
Framwork	Keras, Tensorflow, Pytorch, Laravel, Django, Wordpress.
Tools	Git & Github, Linux, Bash.
Misc.	Research, teaching, training, consultation, Morse Code.
Languages	Strong reading, writing & speaking competencies for Bangla and English.

Awards and Achievements

- **IBM-Centre of Excellence**, *Developed a Minimum Viable product (MVP)*, To Build a ChatBot Using IBM Watson.(Mentored by IBM).
- **Best Paper Awards**, For *Bangla Handwritten Digit Recognition using Convolutional Neural Network* & *Ekush: A Multipurpose and Multitype Comprehensive Database for Online Off-line Bangla Handwritten Character*
- **1st Runner UP**, 1st runner up on 3 minute pitching competition at *2nd Symposium on Bangla Computational Linguistics (SBCL)*, SUST, Sylhet.
- **Best Student Research Award (2018 & 2019)**, Department of Computer Science & Engineering, Daffodil International University, Dhaka, Bangladesh.
- **Conducting Workshop** about Machine Learning & Research in three different university.

References

Available on Request