ANANNA BISWAS

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Email: **ananna314.bd@gmail.com**
GitHub: **https://github.com/Anannabiswas**

Website: **https://anannabiswas.github.io/**
LinkedIn: **https://www.linkedin.com/in/ananna0pi/**

RESEARCH INTEREST

- Computational Neuroscience, Signal Processing
- Brain-Computer Interface, Neural Engineering
- Machine Learning, Deep Learning
- Computer Vision, Biomedical Image Processing

EDUCATION

B.Sc. in Electronics and Communication Engineering   April 2015 - February 2019

Khulna University of Engineering and Technology, Khulna.
- CGPA: 3.31/4.00

PROFESSIONAL EXPERIENCE

Research Engineer   September 2021 – March 2022

Advanced Intelligent Multidisciplinary Systems (AIMS) Lab   UIU, Dhaka, Bangladesh
- Worked on a Neuro marketing project to predict consumer response (preference, purchase intention, & attention)
  to the marketing stimuli through machine learning models using EEG signals and eye-tracker.

Research Assistant   August 2019 – August 2021

Brainekt-Computer Software Company   Dhaka, Bangladesh
- Writing research articles.
- Conducted research on Projects:
  - Wheelchair patient monitoring problem using EEG signals.
  - Anomaly detection of ECG signal by dot Residual LSTM Network.
- Working on the collaboration among independent researchers.

Operator   February 2018 – February 2019

Fabrication (FAB) Lab   KUET, Khulna, Bangladesh
- Organized workshop on "Laser Cutting & Engraving".
- Organized workshop on "cutting Edge Fabrication Facilities".
- **https://www2.kuet.ac.bd/fablab/operators-2018/**

PUBLICATIONS

- **Ananna Biswas,** Fazla Rabbi Mashrur, Khandoker Mahmudur Rahman, Mohammad Tohidul Islam Miya, Farhana Sarker, Khondaker A. Mamun, **An Overview of Neuromarketing Research in Developing Countries: Prospects and Challenges,** 2nd International Conference on Computing Advancements (ICCA) (2022).

- **Ananna Biswas**, Zabir Al Nazi, Tasnim Azad Abir, **Invasive Ductal Carcinoma Detection by A Gated Recurrent Unit Network with Self Attention ,** International Conference on Electrical Information and Communication Technology (EICT) (2019).

- Zabir Al Nazi, **Ananna Biswas** , Md. Abu Rayhan, Tasnim Azad Abir, **Classification of ECG Signals by dot Residual LSTM Network with data augmentation for anomaly detection** International Conference on Computer and Information Technology (ICCIT) (2019).

SKILLS

- Languages: Python, MATLAB, HTML, CSS, C++, C
- Operating Systems: Windows, Ubuntu, Linux
- Framework/ Tools: Keras, tensor flow, scikit-learn, OpenCV, Pandas, Jupyter Notebook, Code Blocks, EEGLAB
- Paper writing: LaTex
- Data Analysis and Presentation: SQL, MS Excel, MS Word, MS Power Point

- IDEs: Jupyter Notebook, Spyder, Code Blocks.

ONLINE COURSES AND TRAINING

- NMA Computational Neuroscience by neuromatch academy
  - Intro to Modeling
  - Machine learning
  - Dynamic Systems
  - Stochastic Process
- The BCI & Neurotechnology Spring School 2022 by g.tec medical engineering GmbH.
- Ada Lovelace DATATHON 2021 by HERWILL and BdOSN:
  - Descriptive Analysis
  - Feature Engineering
  - Machine learning Models
  - Validation and Evaluation
- Introduction to Python (**datacamp**)
- Intermediate Python (**datacamp**)
- Neural Networks and Deep Learning by deeplearning.ai (**Coursera**).
- Improving Deep Neural Networks: Hyper parameter Tuning, Regularization and Optimization by deeplearning.ai (**Coursera**).
- Fight Against COVID-19 Pandemic Using Machine Learning 2020 by IEEE CS BDC.
- Git for Developers Using GitHub by Coursera Project Network (**Coursera**).
- Speak English Professionally: In Person, online & On the Phone by Georgia Institute of Technology (**Coursera**).

UNDERGRADUATE COURSES

- Data Structure & Algorithms, Database System, Internet Programming, C Programming, Object Oriented Programming.
- Digital Image Processing, Digital Signal Processing.
- Numerical Analysis, Information Theory
- Computer Networks.

SCHOLARSHIP

- Shahjalal Islami Bank HSC Scholarship (Offered for poor & scholar Bangladeshi students)
- Higher Secondary School Certification (HSC) Scholarship (Offered by Government of Bangladesh)
- Secondary School Certification (SSC) Scholarship (Offered by Government of Bangladesh)

VOLUNTEER EXPERIENCE

Publication Secretary @ **MEC, KUET**.	April 2018 – April 2019
Treasurer @ KUET Career Club (**KCC, KUET**).	March 2018 – March 2019
IT executive @ KUET Unit Face of **ESAB** (**Engineering Students Association of Bangladesh**).	July 2017 – July 2019
Organizing committee member of Technival'18 @ **KUET**	April 2018
Organizing committee member of Career Carnival @ **KUET**	July 2017
Organizing committee member of Robi Career Carnival @ **KUET**	August 2017

REFERENCES

- ❖ **Dr. A. B. M. Aowlad Hossain**, Professor(ECE) @ Khulna University of Engineering & Technology (KUET)
  Email:aowlad0403@ece.kuet.ac.bd

- ❖ **Dr. Md. Faruque Hossain**, Professor(ECE) @ Khulna University of Engineering & Technology (KUET)
  Email:fhossain97@yahoo.com