MD. ZAHIDUL HASAN

+8801521445739
zadidhasan11@gmail.com
zahidul-hasan.github.io

EDUCATION

University of Dhaka <div align="right">Dhaka, Bangladesh</div>
Degree: *Bachelor of Science, in Computer Science and Engineering* <div align="right">January 2015 - January 2019</div>
Research Interests

Artificial Intelligence , *Machine Learning* , *Reinforcement Learning* , *Deep Learning* , *Representation Learning* *Optimization Theory*

PROFESSIONAL EXPERIENCE

BRAC University <div align="right">Dhaka, Bangladesh</div>
Lecturer <div align="right">September 2019-Present</div>
- Served as a theory-coordinator of various multi-section courses.
- Taught *Advanced Graph Theory* and the course was open to both graduate and undergraduate students.
- Single-handedly launched and developed the course contents and syllabuses of the following new courses: *Advanced Graph Theory, Advanced Algorithms, Graph Theory*.
- Created course materials for a lot of other courses such as *Linear Algebra, Machine Learning* etc.
- Revised the syllabus and augmented new course materials to *Data Structures, Machine Learning* etc.
- Created animated video tutorials for *Data structures* using the Python Manim library developed by Grant Sanderson.
Courses Taught: *CSE422: Artificial Intelligence* *CSE427: Machine Learning* *CSE708: Advanced Graph Theory* *CSE426: Advanced Algorithms* *MAT216: Linear Algebra & Fourier Analysis* *CSE220: Data Structures* *CSE230: Discrete Mathematics* *MAT324: Graph Theory*

Samsung R&D Institute, Bangladesh <div align="right">Dhaka, Bangladesh</div>
Software Engineer I <div align="right">April 2019 - August 2019</div>
- I worked in a team in the Deep Learning sector. I implemented object detection architectures like YOLOv3, RCNN, fast-RCNN and faster-RCNN from scratch using TensorFlow to detect company logos from images.

SCHOLASTIC AWARDS AND ACHIEVEMENTS

International Mathematical Olympiad 2013 <div align="right">Santa Marta, Colombia</div>
- *Received **Honorable Mention** among 527 participants from 97 countries* <div align="right">July 2013</div>
Asian Pacific Mathematical Olympiad 2013 <div align="right">Dhaka Bangladesh</div>
- *Received **Bronze Medal** among 307 participants from 34 countries* <div align="right">March 2013</div>
Bangladesh Mathematical Olympiad <div align="right">Dhaka Bangladesh</div>
- *Became the national **champion of the champions*** <div align="right">February 2011</div>
- *Secured the **3rd, 4th and 3rd** positions respectively in* <div align="right">2012, 2013, 2014</div>

4th position among 120 teams in North South University Inter University Programming Contest 2016

5th position among 98 teams in MBSTU Inter University Programming Contest 2016

6th and 11th position among 117 teams in IUT ICT FEST 2017, 2016

7th position among 150 teams in CUET Inter University Programming Contest 2017

10th position among 150 teams in ACM ICPC Dhaka Regional Contest in 2017

12th position among 161 teams in SUST Inter University Programming Contest 2016

VOLUNTEERING

Mymensingh Parallel Math School   Mymensingh, Bangladesh
Sole Instructor and Administrator   August 2012 - July 2013
Bangladesh Mathematical Olympiad   Dhaka, Bangladesh
Trainer and Mentor   March 2015 - Present
International Mathematical Olympiad 2021   Saint Petersburg, Russia
Observer A   July 2021
    - I hosted the virtual 62nd IMO in Bangladesh locally due to the mass lockdown during the Covid-19 pandemic.
BRAC University Competitive Programming Community   Dhaka, Bangladesh
Trainer and Coach   August 2022 - Present

NOTABLE PROJECTS

Mathematical Animations For Data Structures   2020
    - Learnt the Python Manim Library developed by Grant Sanderson and created video lectures for Data Structures in the semester of Summer 2020. The playlist can be found here and the codes can be found here.

Bengali Spell Checker and Named Entity Recognizer   2017
    - Created an online context-insensitive Bengali spell checker that uses Levenshtein distance and Burkhard-Keller tree to continuously learn better spellings of words and designed a named entity recognizer using Hidden Markov Models to predict parts of speeches within a sentence with 81 percent accuracy.

PetWorld   2017
    - Designed and implemented a retail shop website along with a social media portal for selling pet and pet products using Django, Javascript and AJAX.

Archery   2015
    - Implemented a single player two level archery game using Borland Graphics Interface where targets and birds show up arbitrarily and the user has to shoot them. The trajectory of the arrow is a parabola.

TECHNICAL SKILLS

Languages and Tools: C/C++, Python, Javascript, SQL, LaTeX
Frameworks and Libraries: TensorFlow, PyTorch, Keras, Django, Scikit-Learn, NLTK
Problem Solving: https://leetcode.com/zadid_hasan/ [Solved more than 600 medium and hard algorithmic and data structure intensive problems]

REFERENCES

Mahbubul Alam Majumdar

Professor and Dean   Buidling-8, Floor-7th, Room: UB80706
School of Data and Sciences   45, Mohakhali C/A, Dhaka
BRAC University   Email: *majumdar@bracu.ac.bd*
Department of Computer Science and Engineering   Tel#: 09617445003