A.T.M. Masum Billah

+880 1719118554 masumbillah1717@gmail.com
linkedin.com/in/masum-billah-mishu github.com/MBMishu mbmishu.github.io

PROFESSIONAL SUMMARY

Innovative underwater robotics and AI specialist with expertise in ROV development, mission planning. I lead projects in autonomous marine systems and AI-driven computer vision solutions. With a background in full-stack development (Django, Angular, REST API) and embedded systems (Jetson Nano, Pixhawk, Arduino), I have successfully developed multiple robotics and web-based applications. Recognized for achievements in international robotics competitions, I am passionate about advancing marine exploration technology and scaling innovative solutions globally.

TECHNICAL SKILLS

Programming: Python, MySQL, JavaScript, PHP
Web: Django,Angular, Rest Framework, Bootstrap, Tailwind css, Firebase, Nodejs
Hardware & Embedded Systems: Pixhawk, Jetson Nano, Arduino, Raspberry Pi, ESP
Others: ROS, OpenCV, Computer Vision, Autonomous Navigation

Work Experience

DuboTech Digital Ltd. **2023 – Present**
Co-founder

Bracu Duburi **2023 – 2024**
Team Lead

BRAC University, Savar Campus **2022 – Present**
Instructor of Basic Robotics

Robotics Club Of BRAC University **2021 – 2023**
General Secretary of Operation

Team Good Graphics **2021 – 2022**
Full Stack Developer

Bracu Duburi **2021 – 2022**
Machine Vision Engineer

Education

BRAC University, Dhaka, Bangladesh **2018 – 2024**
Bachelor of Science in Computer Science

Adamjee Cantonment College, Dhaka, Bangladesh **2015 – 2017**
Higher Secondary Certificate (Bangla Version)

Monipur High School & College, Dhaka, Bangladesh **2005 – 2015**
Secondary School Certificate (Bangla Version)

Projects

- **Bracu Duburi**
  The BRACU Duburi team is dedicated to building a welcoming community for enthusiasts who love underwater robots. Its goal is to make a place where people can freely share their ideas and knowledge, crafting new technologies that could change how things work beneath the water.

- **Drone Surveillance**
  By using OpenCV and yolov3 to identify objects in a video footage. Non-maximum suppression (NMS) has been used to eliminate duplicates and assign a unique identifier to each object and count the total number of objects in the junkyard. This allowed us to accurately keep track of the objects and their count.

- **ioBot**
  Autonomous rescue bot using computer vision. It can assist the victim on its own by sending them a health kit and a hammer, both of which can save their lives. It is also a data mining bot using pH, humidity, temperature, and moisture sensors.
- **Alo**
  Solar panel control by Bluetooth sensor and for control this developed an android app.
- **EcgIo**
  Engineered a cutting-edge biomedical device incorporating ECG, EMG, GSR, and color sensors. Demonstrated expertise in designing a multifunctional device for comprehensive health monitoring.
- **Cansat**
  Developed a CanSat, a satellite simulation enclosed within a soft drink can.

Web Application Projects

- **DuboTech Website**
  Designed and developed this robotics services website using the Angular framework.
- **Allergic2Allergies**
  Designed and developed a blogging website using the Django framework.
- **Typing Statistics**
  Typing Statistics website to check word count, character count, typing count, inactive count using JavaScript and Django framework.
- **PaintinkBys Web**
  Woocommerce-based WordPress for showcasing and shopping custom works, adorable creations.
- **CgRealty**
  CG Commercial Realty is a real estate firm. Developed this website using HTML, CSS & JavaScript.
- **Duburi Web**
  Designed and developed this website using Django Rest API for the backend and Angular framework for the frontend.
- **JoyJatra**
  Designed and developed this website for a hackathon event using the Django framework.
- **Identifier**
  Web-based Augmented Reality using Ar.js. Designed and developed this to identify products using web-based augmented reality.
- **Easy Life BD**
  Designed and developed a multi-level marketing app integrated with SSL commerce.

Achievements

- **1st place in website design** — Robosub, USA *September 2024*
- **2nd Place Overall in AUV challenge** — Robosub, USA *August 2023*
- **Ingenuity Special Award** — Robosub, USA *August 2023*
- **Semi Finalist** — Robosub, USA *August 2022*
- **Winner** — IC4IR, Bangladesh *2021*
- **2nd at Hackathon** — UAP Cse Carnival, Bangladesh *2020*
- **2nd at Poster presentation** — UAP Cse Carnival, Bangladesh *2020*

- **1st at Poster presentation** — IEEE Tourna Tech, Bangladesh *2019*
- **1st at project showcasing** — ACC IT Festival, Bangladesh *2017*
- **3rd at project showcasing** — ACC Science Festival, Bangladesh *2015*