

Gazi Faysal Jubayer

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Khulna, Bangladesh

PROFESSIONAL SUMMARY

Mechanical Engineering student with expertise in Machine Learning, Full-Stack Development, and CAD Design. 2-time NASA Space Apps Challenge Global Nominee (2023, 2024) and Galactic Problem Solver with proven experience in building AI-powered platforms. Published researcher in manufacturing optimization. Champion of MIE Robolution CAD Contest. CSWA, CSWP, CSWPA-SM, and CSWPA-WD certified. Proficient in Python, TensorFlow, Django, Next.js, and SolidWorks with leadership roles across 15+ technical organizations.

EDUCATION

Khulna University of Engineering and Technology (KUET)

Bachelor of Technology in Mechanical Engineering

Khulna, Bangladesh

Dec. 2022 – June 2027

- Relevant Coursework: Machine Learning, Data Science, CAD/CAM, Manufacturing, Programming, Automation

Khulna Public College

Higher Secondary Certificate (HSC) - Science Department

Khulna, Bangladesh

2019 – 2021

TECHNICAL SKILLS

Programming Languages: Python, TypeScript, JavaScript, C, Dart, SQL, HTML, CSS

ML/AI Frameworks: TensorFlow, Scikit-learn, Pandas, NumPy, Matplotlib, OpenCV

Web Development: Django, Flask, Next.js, React.js, FastAPI, Tailwind CSS, Vercel

CAD & Design: SolidWorks (CSWP, CSWPA-SM, CSWPA-WD), AutoCAD, Blender, KeyShot, Relux

Developer Tools: Git, GitHub, VS Code, Cursor IDE, PyCharm, Jupyter Notebook, Docker

Cloud & Deployment: Cerebrium Cloud, Vercel, AWS, RESTful APIs

Specialized Skills: Machine Learning Model Development, Computer Vision, Web Scraping (Selenium), Data Analysis, Mobile Development (Flutter), 3D Modeling, Sheet Metal Design

Soft Skills: Team Leadership, Project Management, Research & Development, Technical Writing, Public Speaking

CERTIFICATIONS

Certified SolidWorks Professional Advanced (CSWPA-WD) - Weldments — Dassault Systèmes — July 2024

Certified SolidWorks Professional Advanced (CSWPA-SM) - Sheet Metal — Dassault Systèmes — June 2024

Certified SolidWorks Professional (CSWP) - Mechanical Design — Dassault Systèmes — June 2024

Certified SolidWorks Associate (CSWA) - Mechanical Designer — Dassault Systèmes — April 2024

Python Project for AI and Application Development — IBM via Credly — April 2024

Developing AI Applications with Python and Flask — IBM via Coursera — April 2024

Python for Data Science, AI & Development — IBM

PUBLICATIONS

Analyzing the impact of opportunistic maintenance optimization on manufacturing industries in Bangladesh: An empirical study — Technology in Behaviour Journal — August 2024 — DOI: 10.1016/j.tbench.2024.100172

KEY ACHIEVEMENTS & AWARDS

RoboSub 2025 Competitor - Team BengalSub: Leading mechanical design and web development for autonomous underwater vehicle

2nd Place - NASA Texas Space Grant Mars Autonomous Rover Rally (Team Durbar, Dec. 2025): Placed 2nd in international autonomous rover navigation challenge using ROS and Space Teams PRO simulation for Mars Kaiser Crater exploration

2-Time Galactic Problem Solver - NASA International Space Apps Challenge (2023, 2024)

NASA Space Apps Challenge 2024 - Regional 2nd Runner-Up & Global Nominee: Developed innovative solution addressing global challenges through collaborative technology

NASA Space Apps Challenge 2023 - Regional 1st Runner-Up & Global Nominee: Created solution recognized among thousands of international participants

Calibration 1.0 - 1st Runner-Up in National CAD Contest (February 2024)

Champion - MIE Robolution CAD Contest (Team Phenol): Won 1st place and 17,000 Taka prize at national CAD competition organized by Mechanical and Industrial Engineering Department, CUET

PROFESSIONAL EXPERIENCE

Team BengalSub - RoboSub 2025

Website Team Lead & Mechanical Designer

Khulna, Bangladesh
May 2025 – Present

- Lead web development using Next.js and React for international underwater robotics competition
- Design AUV mechanical components using SolidWorks with focus on hydrodynamics and structural integrity
- Coordinate cross-functional collaboration across software, electrical, and mechanical teams

CADers

Chief Policy Analyst (CPA)

Khulna, Bangladesh
Jan. 2025 – Present

- Lead policy development and strategic planning for KUET's premier CAD-focused student organization
- Manage IT resources and oversee technical infrastructure supporting 100+ members
- Previously Assistant IT and Resources Officer (Mar. 2024 - Jan. 2025)

KILO FLIGHT

Senior Executive - Mechanical Powertrain Sub-Team

Khulna, Bangladesh
Oct. 2025 – Present

- Design and optimize aerial vehicle powertrain systems using SolidWorks and computational analysis
- Mentor junior members on mechanical design principles and CAD best practices

Team Durbar

Senior Executive - Autonomous Sub-Team

Khulna, Bangladesh
Sept. 2025 – Present

- Placed 2nd in NASA Texas Space Grant Mars Autonomous Rover Rally using ROS and Space Teams PRO (Dec. 2025)
- Develop autonomous navigation algorithms using OpenCV and Python for computer vision applications
- Design mechanical components and integrate sensors for autonomous vehicle systems
- Previously Trainee Member (July 2024 - Sept. 2025)

Team BengalBoat

Website Team Lead

Khulna, Bangladesh
Oct. 2025 – Present

- Develop responsive team website using modern JavaScript frameworks showcasing maritime projects

LOOP

Assistant Project Manager

Khulna, Bangladesh
Oct. 2025 – Present

- Manage project timelines and implement Python-based automation for tracking and efficiency

Uddhar (uddharbd.org)

Chief Information Officer

Bangladesh
Aug. 2024 – Present

- Co-founded disaster relief charity platform during 2024 Feni Flood crisis, serving thousands
- Lead 30+ member technical team developing Django web platform and Flutter mobile application
- Oversee IT strategy, digital infrastructure, and full-stack development operations

VSB - Virtual Solution Book (vsbbd.com)

Co-Founder & Tech Lead

Remote
Jan. 2024 – Present

- Co-founded EdTech platform serving 1000+ HSC and university admission students
- Lead Django-based full-stack development with Selenium web scraping for content automation

AJS Innovation

Founder

Remote
June 2023 – Present

- Founded engineering design and automation company delivering CAD and software solutions
- Developed Python automation workflows reducing processing time by 60%

KUET Aerial Vehicles Engineering Network

Executive Member

Khulna, Bangladesh
Dec. 2024 – Present

- Contribute to aerial vehicle design and development projects for university research initiatives
- Collaborate on multidisciplinary teams for UAV mechanical design and testing

NOTABLE PROJECTS

Mars Autonomous Rover Navigation <i>ROS, Python, Space Teams PRO</i>	Oct. - Nov. 2025
* Placed 2nd in NASA Texas Space Grant Mars Autonomous Rover Rally with Team Durbar	
* Developed autonomous navigation algorithms using ROS for Mars Kaiser Crater terrain exploration	
* Implemented path planning and obstacle avoidance in high-fidelity physics-based Mars simulation	
* Designed mission strategies for in-situ resource utilization and habitability assessment	
 ExoBengal - AI Exoplanet Detection Platform <i>TensorFlow, Next.js, FastAPI</i>	2024
* Built comprehensive AI-powered exoplanet discovery ecosystem with ML models, interactive website, and AI chatbot	
* Developed Python package (PyPI) with Random Forest, CNN, KNN, and Decision Tree models achieving 90% accuracy (0.90 AUC-ROC) on NASA Kepler Q1-Q17 dataset with 38,746+ exoplanets	
* Implemented Earth Similarity Index (ESI) calculation, probability scoring with 0.6 threshold, hyperparameter tweaking, and auto-retraining capabilities	
* Built Next.js interactive website with 3D orbital visualizations, galaxy maps, real-time dashboards, advanced filtering, and structured learning modules	
* Deployed ML models on Cerebrium Cloud with RESTful API endpoints for scalable predictions	
* Integrated Cosmo AI chatbot using Gemini 2.5 Flash API for natural language astronomy queries	
* Technologies: TensorFlow, Scikit-learn, Pandas, Next.js, React, FastAPI, Tailwind CSS, Vercel	
 Uddhar Disaster Relief Platform <i>Django, Flutter, PostgreSQL</i>	Aug. 2024 – Present
* Developed full-stack charity platform during 2024 Feni Flood connecting donors with victims	
* Built Django REST API backend with PostgreSQL database for real-time donation tracking	
* Leading Flutter mobile app development for iOS and Android platforms	
 Virtual Solution Book Platform <i>Django, Selenium, Web Scraping</i>	Jan. 2024 – Present
* Created EdTech platform serving 1000+ students with automated educational content delivery	
* Implemented Selenium-based web scraping for intelligent content aggregation from multiple sources	
* Developed user authentication, content management system, and advanced search functionality	
 Autonomous Vehicle Navigation System <i>OpenCV, Python, Computer Vision</i>	2024
* Developed real-time object detection and tracking using OpenCV for autonomous navigation	
* Implemented sensor fusion and path planning algorithms for obstacle avoidance	
 Manufacturing Optimization Research <i>Python, Statistical Analysis</i>	2023 – 2024
* Conducted empirical study on opportunistic maintenance optimization in Bangladesh manufacturing	
* Performed statistical modeling using Python analyzing cost-benefit of maintenance strategies	
* Published peer-reviewed findings in Technology in Behaviour journal	

ADDITIONAL COMMUNITY ROLES

Autodesk User Group Network Bangladesh	Bangladesh
<i>Assistant Partnership Manager</i>	<i>Nov. 2024 – Present</i>
• Manage partnerships and community engagement for Autodesk software user community in Bangladesh	
 Bangladesh 3DEXperience & SolidWorks User Group Network	Bangladesh
<i>Junior Marketing Executive</i>	<i>Oct. 2024 – Present</i>
• Lead marketing initiatives and community outreach for Bangladesh SolidWorks user community	
 SEAN Publication	Bangladesh
<i>Campus Ambassador</i>	<i>Oct. 2024 – Present</i>
• Represent SEAN Publication at KUET, promoting educational content and building campus community	
 Sholo Magazine	Bangladesh
<i>Local Ambassador</i>	<i>Feb. 2022 - 2023</i>