

EDUCATION

Finland	LUT University	Sept 2024 - Jul 2027
<ul style="list-style-type: none">Major: Computational Science and Artificial Intelligence, B.Sc. Minor: Software and Systems EngineeringProgramming Coursework: Fundamentals of Programming, DSA, OOP, Database Systems, Web Prgm., SQA, Cybersec., DevOpsComputational Coursework: Linear Algebra, Vector Analysis, Matrix Decomp, Multivariate Calculus, Probabilities & Statistics		

WORK EXPERIENCE

Prime Tech Solutions Limited	Software & Data Engineer	May 2025 - Present
<ul style="list-style-type: none">Designed & developed the first census+survey data migration and SDMX system of Bangladesh for Govt. Bureau of Statistics.Collaborated with cross-functional Govt. depts to ensure data accuracy, metadata curation integrity, & policy compliance.Leveraged knowledge in Python, ETL/ELT Pipelines & Warehousing, Oracle, PostgreSQL, FastAPI, Pandas, SDMX, STATA, SPSS, Git.		
LUT University	Teaching Assistant (FoP, OOP)	Sept 2025 - Present
<ul style="list-style-type: none">Conducted weekly exercise classes in the Fundamentals of Programming in Python and Object-Oriented Programming course.Developed attendance management and auto-grading prototype including project grader that overall improved productivity.		
Propaganda Cycle (Research Work)	Software Developer/Co-author	May 2024 - Present
<ul style="list-style-type: none">Ongoing paper with researchers at UKassel and TU Dortmund using the data scraped by me from political figures on social media.Leveraged knowledge in Statistics, Sentiment Analysis, Python, Selenium, OpenCV, Pillow, CTK, Matplotlib, SQLite, Pandas.		

ACTIVITIES

World Robot Olympiad (WRO)	National Coach	Jan 2023 - Dec 2023
<ul style="list-style-type: none">Led a team in the Future Innovators segment (national), focusing on robot construction, software design, & business analysis.Guided two national teams' participation in international competition rounds, one team achieved an impressive, first time in the history of Bangladeshi participants, a silver award out of 451 global teams at WRO '23 Panama.		
Give Bangladesh Foundation	Web Developer	Sept 2023 - Dec 2025
<ul style="list-style-type: none">Collaborated with African NGO, Awake Youth Initiative, & built them a fundraising website for slum communities in Nairobi, Kenya.Leveraged knowledge in Full Stack Web Development, Javascript, Git, Figma for UI/UX Design, SEO, and Google Analytics.		
Notre Dame IT Club	President, Robotics	Aug 2019 - June 2021
<ul style="list-style-type: none">Organized a 3-day national tech event with 1100+ participants, 20+ robotics competitions by leading a team of 70+ volunteers.Mentored 45+ national robotics/project teams, conducted 9 workshops along with 27+ robotics-oriented classes for 150+ students.Was commissioned by my school's ICT dept to design and build a national curriculum-oriented teaching module: a combined demonstration of clock pulse generators, logic gates, flip flops, registers, counters, and a 7-segment display on a breadboard.		

AWARDS & ACHIEVEMENTS

Silver Medal • International Blockchain Olympiad (Hong Kong)	positioned among top national teams from 44 countries
Silver Honor • World Robot Olympiad - WRO (Panama)	first Bangladeshi coach to achieve top place among 77 countries
Silver Medal • Bangladesh Robot Olympiad	scored 2nd position among 20,000+ participants
Bronze Medal • Bangladesh Blockchain Olympiad	youngest developer to secure top national position at BCOLBD
National Finalist • NASA Space Apps Challenge	secured position among 2,000+ nationwide participants

PERSONAL PROJECTS

LUT FoP Attendance System & Auto-Grader	AUTOMATION APP FOR FUNDAMENTALS OF PROGRAMMING COURSE	Python
<ul style="list-style-type: none">Developed a Windows app for marking QR-based attendance in the exercise sessions, and auto-grading in Moodle gradebook.Utilized: Python, Tkinter, Scikit-Learn, SQLite, Selenium, BeautifulSoup, Multi-Threading, CodeGrade, Moodle.		
Python Program Tester	PROJECT GRADING SOFTWARE FOR FUNDAMENTALS OF PROGRAMMING COURSE	Python
<ul style="list-style-type: none">Developed custom features including an integrated terminal, syntax highlighting, real-time file monitoring, and point tracking.Implemented time-saving functionalities like preset testing templates, hotkeys, and project-oriented grading schemes.Utilized: Python, Tkinter, Pillow, Watchdog, Pygments-lexer, Multi-Threading, CodeGrade.		
Block Meter	BLOCKCHAIN-BASED ELECTRICITY BILLING SYSTEM	Python, C++, Solidity
<ul style="list-style-type: none">Devised an electricity billing system that eliminates non-technical losses by 100% and ensures transparency and immutability.Utilized: Python, C++, Solidity, PHP, Javascript, Ethereum, IPFS, BigChainDB, AES Encryption, ESP32, ThingSpeak.		
Tethr	NETWORK TOWER POSITION OPTIMIZER USING MACHINE LEARNING	Python, C++
<ul style="list-style-type: none">Developed an ML-powered robotic system to optimize 5G network tower locations using automated aerial and ground drones.Incorporated non-parametric and density-based Mean Shift clustering algorithm, and Gradient Descent for optimization.Utilized: Python, C++, Scikit-Learn, OpenCV, YOLOv8, Pandas, Raspberry Pi, Jetson Nano, ROS, FastAPI, Tkinter.		
Social Media Bot	AUTOMATED SOCIAL MEDIA INTERACTOR AND DATA SCRAPER	Python
<ul style="list-style-type: none">Developed a bot that automatically interacts with Facebook and Instagram to scrape data from any public profile.Designed a user-friendly GUI for easy interaction with data scraper using CustomTkinter for improving the debugging capabilities.Utilized: Python, Selenium, BeautifulSoup, OpenCV, Pillow, CustomTkinter, Matplotlib, SQLite, Pandas.		

SKILLS

Programming	Proficient: Python • C++ • C • Java • JavaScript • Typescript • SQL	Familiar: PHP • MATLAB • LaTeX • R
Database & Pipelines	Oracle • PostgreSQL • MySQL • SQLite • Firebase • MongoDB • ETL/ELT Processes • SDMX Framework • Data Modeling	
AI/ML & Data Analysis	PyTorch • Scikit-Learn • OpenCV • YOLOv8 • Pandas • NumPy • PowerBI • Excel • Stata • SPSS	
Full-Stack & App Dev	React • Next.js • TailwindCSS • GSAP • FastAPI • Flask • Django • Selenium • Tkinter • Java Swing • Figma	
IoT & Embedded	Arduino • Raspberry Pi • Teensy • ESP32 • STM32 • Sensor and actuator integration	
Blockchain & DLT	Ethereum • Solidity • Hyperledger Fabric • Multichain • IPFS	