

Md Aminul Islam

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🖱 Portfolio 📺 YouTube 📝 Blog

Education

B.Sc in Mathematics (CGPA 2.95 out of 4), Jan 2015 – Dec 2019 | Sylhet, Bangladesh
Shahjalal University of Science and Technology ✎

HSC, Higher Secondary Certificate (GPA 5 out of 5), Jan 2011 – Aug 2013 | Dhaka, Bangladesh
Queen's College ✎

Skills

- **Expertise:** Python | SAS | C | Matlab
- **Web Designing:** JavaScript | HTML | CSS | ES6 | ReactJS | NodeJS | Bootstrap | TailwindCSS | ExpressJS
- **Familiar:** R | C++ | Fortran
- **Database:** SQL | MongoDB | Firebase
- **Tools:** Latex | VS Code | Jupyter Notebook | Git | Figma | Netlify | Vercel

Research Interests

Areas of Interest: Mental Health, Clinical Trials, Healthcare, and Social Disparity.
Domains: Analytics and Value

Professional Experience

Statistical Programmer II, Shafi Consultancy ✎ Jun 2023 – present | Sylhet, Bangladesh
As a Statistical Programmer II, I am responsible for developing NONMEM programs for pharmacokinetics and pharmacodynamics, conducting independent QC, creating data visualization tools using Python and other relevant programming languages, preparing training materials, and delivering training on SAS and Python.

Statistical Programmer I, Shafi Consultancy ✎ Feb 2022 – May 2023 | Sylhet, Bangladesh
As a Statistical Programmer I, I was responsible for interpreting client requirements for data transformations and statistical analysis, then writing and validating programs using programming languages such as SAS, Python, and R.

Trainee Statistical Programmer, Shafi Consultancy ✎ Aug 2021 – Jan 2022 | Sylhet, Bangladesh
As a Trainee Statistical Programmer, I received training in clinical trials, data manipulation, SAS programming, NONMEM, CDISC standards, and the development of adequately documented programs using SDTM and ADaM data models.

Python Instructor (Online), Sofwebs Academy Dec 2019 – Jan 2021
Bandar Sunway, Malaysia
As a part-time Python instructor, I was responsible for preparing the syllabus and training materials, and teaching Python along with advanced Python libraries such as NumPy, pandas, Matplotlib, and Seaborn for data manipulation and visualization.

Teaching Experience

Python Instructor (Online), Happy Coders ✎ Dec 2022 – Apr 2023 | Dhaka, Bangladesh
Happy Coders teaches kids programming both online and in-person in a creative, happy, and playful way. I worked as a part-time Python instructor there, where my responsibilities included teaching Python programming, creating educational materials, preparing question papers, assigning homework, and grading.

Mentor of C program,

Mar 2015 – Aug 2019 | Sylhet, Bangladesh

Euclid Programming Club, Department of Mathematics, SUST

The club, operating under the supervision of the Department of Mathematics, brings together the worlds of mathematics and computer science, creating a dynamic and interdisciplinary environment. As a member and mentor, I guided on topics like data structures and algorithms, conducted programming bootcamps, and organized events, including programming contests, to promote collaboration and competition.

Mentor of Mathematics,

Apr 2015 – Nov 2019 | Sylhet, Bangladesh

UCC academic and admission care (Private) [↗](#)

I worked as a part-time math instructor, teaching a curriculum equivalent to 'A level.' My responsibilities encompassed creating educational materials, preparing question papers, assigning homework, and conducting grading.

Mentor of ICT, Ambition Coaching Home

Oct 2015 – Aug 2019 | Sylhet, Bangladesh

I worked as a part-time ICT (Information and Communication Technology) teacher, where I was responsible for creating educational materials, question papers, assignments, and conducting gradings.

Volunteer Experience

Volunteer, SUST Math Society, Department of Mathematics, SUST

Mar 2016 – Sep 2018 | Sylhet, Bangladesh

I was a member of the SUST Math Society and actively volunteered to organize various programs, including mathematics competitions, cultural events, departmental tours, orientation programs, and charity events.

Awards

Mentorship Award,

Aug 2019

Euclid Programming Club, Department of Mathematics, SUST

Academic Project and Research

Development of Standalone GUI for parabolic IBVP and Application of Homotopy Perturbation Method to Linear and Non-linear PDE

Project Demo [↗](#) , GitHub [↗](#)

A MATLAB-based GUI for solving parabolic IBVPs was developed using the Crank-Nicolson and forward explicit methods. The App Designer feature in MATLAB was utilized for the development. Additionally, the Homotopy Perturbation Method for linear and nonlinear ordinary/partial differential equations was studied.

Personal Projects

Prediction Heart Attack

GitHub [↗](#)

Machine learning algorithms were used to predict heart attack. Logistic Regression, KNeighbors Classifier, Random Forest Classifier, Decision Tree, Support Vector Machine algorithms were used and compared the accuracy of each algorithms.

Patient Profile

Live Link [↗](#) , GitHub [↗](#)

It is a web application for visualizing the pharmacokinetics (PK) and pharmacodynamics (PD) concentration of a patient. It can also be used to visualize other charts and compare studies. The application was built on top of Python and the Streamlit framework.

The COVID-19 Data Analysis and Visualization

Kaggle [↗](#)

COVID-19 dataset was analyzed and visualized here. Through interactive visuals, the project showcased infection rates, recovery trends, and mortality patterns. The Python libraries NumPy, Pandas, Matplotlib, and Plotly were used in this project.

Sales Analysis

GitHub [↗](#)

Sales data analysis was performed using Python, with libraries such as Pandas, NumPy, Matplotlib, Seaborn, and additional tools employed to describe and make decisions from the sales datasets.

Blog

Live Link [↗](#) , Frontend [↗](#) , Backend [↗](#)

It is a blog application that supports LaTeX for writing mathematical equations. The application has been developed using HTML, CSS, JavaScript, and ReactJS for the frontend, and ExpressJS, MongoDB, and Firebase for the backend.

Certification

Data Science Math Skills, *an online non-credit course authorized by Duke University and offered through Coursera - Verify Id: GZN5PD4KALJ8*

The Python Workshop, *by Packtpub - Certificate Id: 17896922*

Python Programmer Bootcamp, *by 365Datascienc - Certificate Id: CC-2379111903*

Python for Statistical Analysis, *by udemy - verified: ude.my/UC-d1878d92-ba31-4871-a0dc-8a1262f8ffaf*

R programming, *by udemy - verified: ude.my/UC-b006d771-6631-4cbf-bbcc-85ba00dc4c7d*