



**Emon
Sarkar**

DATE OF BIRTH:
22 Jun 1996

CONTACT

Nationality: Bangladeshi

Gender: Male

 14 Rankin Street, Wari,
1203 Dhaka, Bangladesh

 emon.sarkar127@yahoo.com

 (+880) 1648700693

LinkedIn: <https://www.linkedin.com/in/emon-sarkar/>

Skype: emon.sarkar127

ABOUT ME

Be affiliated with a prestigious organization that gives scope to enhance my knowledge, skills and to reach the pinnacle in the computing and research field with sheer determination, dedication, and hard work.

EDUCATION AND TRAINING

6 JUN 2015 – 21 AUG 2019 – 141 & 142, Love Road, Tejgaon Industrial Area, Dhaka, Bangladesh

Bachelor of Science in Electrical and Electronic Engineering
Ahsanullah University of Science and Technology

CGPA: 3.652 on a scale of 4.00 | Thesis: Handwritten Bangla Character Recognition with Convolutional Neural Network | <http://www.aust.edu/>

1 AUG 2012 – 13 AUG 2014 – 34/B Farmgate - Tejturi Bazar Road, Dhaka, Bangladesh

Higher Secondary Certificate
Government Science College

Field(s) of study

- Science

GPA: 5.00 on a scale of 5.00 | <http://gsctd.edu.bd/en/pages/index>

1 JAN 2003 – 7 MAY 2012 – 82 Municipal Office Street, Dhaka, Bangladesh

Secondary School Certificate
St. Gregory's High School

Field(s) of study

- Science

GPA: 5.00 on a scale of 5.00 | <http://sghscdhaka.edu.bd/>

LANGUAGE SKILLS

MOTHER TONGUE(S): Bengali

OTHER LANGUAGE(S):

English: IELTS Overall Band Score: 8.0

Listening C2 (9.0)	Reading C1 (8.0)	Spoken production C1 (7.5)	Spoken interaction C1 (7.5)	Writing C1 (7.0)
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DIGITAL SKILLS

Microsoft Office (Word, Excel, Access, Power Point, Outlook), Google suite (Gmail, Google Drive, Google Slide, Google Docs, Google Sheets, Google Forms, Google)

C, C++, MATLAB, VERILOG(VHDL), Python, HTML, CSS

Cadence Virtuoso, PLC Programming, FPGA, Altera Quartus, OrCAD PSpice, Arduino, Git, GitHub

RESEARCH EXPERIENCE

JAN 2018 – JUN 2019

Handwritten Bangla Character Recognition with Convolutional Neural Network

As for the final year thesis research activity, we, a team of four undergrads was assigned to study different machine learning algorithms and finally implemented a system named "Handwritten Bangla Character Recognition with Convolutional Neural Network". Handwritten character recognition could be comprehended as a quintessential image processing problem. It basically performs a non-trivial high dimensional task as it works to recognize handwritten characters with user independency. With its various application potentials handwritten character recognition has been studied broadly in the last century. But the recognition of Bengali character has not been much even though it is a major language in the sub-continent of India and is the first language of Bangladesh. Contemporary, convolutional neural network has been found more methodical for image classification for its distinct features. We compare the results of widely used machine learning methods like support vector machine (SVM), neural network & convolutional neural network (CNN) to get the accuracy of 90.8% using CNN as compared to 76.9% using neural network and last but not the least 44% only using SVM. To train and test the model we use two separate datasets: CMATERdb and BanglaLekha-Isolated. The individual image sample was then converted to grayscale, normalized, and inverted to complete the image processing step. Later this dataset was fed into convolutional neural network settings where we used two convolution layers for optimizing recognition. The errors experienced by our model in recognition task are due to almost same patterns in different characters.

PROJECTS

- Basic Game Development using Scratch
- Pandas Python Library for Data Science: <https://github.com/Sarkar22/PandasDataScience>
- Python World Map Geovisualization Dashboard using Covid Data: <https://sarkar22.github.io/Covid19Map/>
- Using SVM to make prediction on luxurious car purchase: <https://github.com/Sarkar22/Using-SVM-to-make-prediction>
- Data Collection and Processing with Python (OMDB and TasteDive Mashup): <https://github.com/Sarkar22/Python-Data-Collection-and-Processing-Course-Project>
- Implemented a simplified version of the game "Wheel of Fortune" using Python: <https://github.com/Sarkar22/Wheel-of-Fortune>
- Logistic Regression with Python and Numpy: <https://github.com/Sarkar22/Logistic-Regression-with-Python-and-Numpy>
- Processing image zip files to look for keywords and faces: <https://github.com/Sarkar22/Processing-Image-zip-files-extracting-faces>
- Building a Sentiment Classifier using Python: <https://github.com/Sarkar22/sentiment>
- Micro-controller based battery charger & DC to controllable AC converter
- Designing a one Bit Arithmetic Logic Unit (ALU) using VLSI software Cadence

LICENSES AND CERTIFICATES

- **Workshop:** Hour of Code: American Centre U.S. Embassy & ranked 2nd at that quiz competition
- ISO/IEC 20000 IT Service Management Associate™, ISO/IEC 27001 Information Security Associate™, Certified Associate in Scrum Fundamentals™ (CAFSTM) by SkillFront(Accredited Professional Certification)
- Cyber Security Foundation Professional Certificate CSFPC™, Remote Work and Virtual Collaboration Professional Certificate RWVCPC™ by CertiProf
- **Course:** Introduction to Cybersecurity, Introduction to Packet Tracer: Cisco Networking Academy
- **Specialization:** Machine Learning: Algorithms in the Real World: Alberta Machine Intelligence Institute
- **Specialization:** Python 3 Programming: University of Michigan
- **Specialization:** Python for Everybody: University of Michigan
- **Courses:** Circuits and Schematics, PCB Layout, PCB Manufacturing: Upverter
- **Courses:** Neural Networks and Deep Learning, Improving Deep Neural Networks: deeplearning.ai
- **Course:** Basic Data Processing and Visualization: University of California, San Diego
- **Course:** Introduction to the Internet of Things and Embedded Systems: University of California, Irvine
- **Course:** Data Scientist's Toolbox, R programming: Johns Hopkins University
- **Course:** Technical Support Fundamentals, The Bits & Bytes of Computer Networking: Google
- **Course:** Introduction to Programming with MATLAB: Vanderbilt University
- **Course:** Best Practice for Biomedical Research Data Management: Harvard Medical School
- **Course:** Artificial Intelligence with Python Professional Certificate Program: Academy Europe
- **Course:** Introduction to Internet of Things: Stanford Center for Professional Development
- **Test:** Numerical Reasoning by TestDome & ranked in the top 10%

RECOMMENDATIONS

- Dr. Satyen Biswas Ph.D., P.E. – Professor – sbiswas.eee@aust.edu – (+88 0) 1742513117
Department of Electrical and Electronic Engineering
Ahsanullah University of Science and Technology
141- 142 Tejgaon Industrial Area
Dhaka-1208, Bangladesh Tel: 880-2-8870422 ext. 607
- Nahyan Al Mahmud – Assistant Professor – nahyan.eee@aust.edu – (+88 0) 1670991257
Department of Electrical and Electronic Engineering
Ahsanullah University of Science and Technology
141- 142 Tejgaon Industrial Area
Dhaka-1208, Bangladesh
- Md. Jakaria Rahimi – Assistant Professor – mjrahimi.eee@aust.edu – (+88 0) 1711272286
Department of Electrical and Electronic Engineering
Ahsanullah University of Science and Technology
141- 142 Tejgaon Industrial Area
Dhaka-1208, Bangladesh

Test Report Form

ACADEMIC

NOTE Admission to undergraduate and post graduate courses should be based on the ACADEMIC Reading and Writing Modules.

GENERAL TRAINING Reading and Writing Modules are **not** designed to test the full range of language skills required for academic purposes.

It is recommended that the candidate's language ability as indicated in this Test Report Form be re-assessed **after two years** from the date of the test.

Centre Number

BD001

Date

01/FEB/2020

Candidate Number

019466

Candidate Details

Family Name

SARKAR

First Name

EMON

Candidate ID

EB0905079



Date of Birth

22/06/1996

Sex (M/F)

M

Scheme Code

Private Candidate

Country or Region of Origin

Country of Nationality

BANGLADESH

First Language

BENGALI

Test Results

Listening

9.0

Reading

8.0

Writing

7.0

Speaking

7.5

Overall Band Score

8.0

CEFR Level

C1

Administrator Comments

(Large empty box for administrator comments)

Administrator's Signature

Date

11/02/2020

Test Report Form Number

19BD019466SARE001A



BRITISH
COUNCIL

idp

Cambridge Assessment
English

BAND 9**EXPERT USER**

Has fully operational command of the language: appropriate, accurate and fluent with complete understanding.

BAND 8**VERY GOOD USER**

Has fully operational command of the language with only occasional unsystematic inaccuracies and inappropriacies. Misunderstandings may occur in unfamiliar situations. Handles complex detailed argumentation well.

BAND 7**GOOD USER**

Has operational command of the language, though with occasional inaccuracies, inappropriacies and misunderstandings in some situations. Generally handles complex language well and understands detailed reasoning.

BAND 6**COMPETENT USER**

Has generally effective command of the language despite some inaccuracies, inappropriacies and misunderstandings. Can use and understand fairly complex language, particularly in familiar situations.

BAND 5**MODEST USER**

Has partial command of the language, coping with overall meaning in most situations, though is likely to make many mistakes. Should be able to handle basic communication in own field.

BAND 4**LIMITED USER**

Basic competence is limited to familiar situations. Has frequent problems in understanding and expression. Is not able to use complex language.

BAND 3**EXTREMELY LIMITED USER**

Conveys and understands only general meaning in very familiar situations. Frequent breakdowns in communication occur.

BAND 2**INTERMITTENT USER**

No real communication is possible except for the most basic information using isolated words or short formulae in familiar situations and to meet immediate needs. Has great difficulty understanding spoken and written English.

BAND 1**NON USER**

Essentially has no ability to use the language beyond possibly a few isolated words.

BAND 0**DID NOT ATTEMPT THE TEST**

No assessable information provided.



To Whom It May Concern

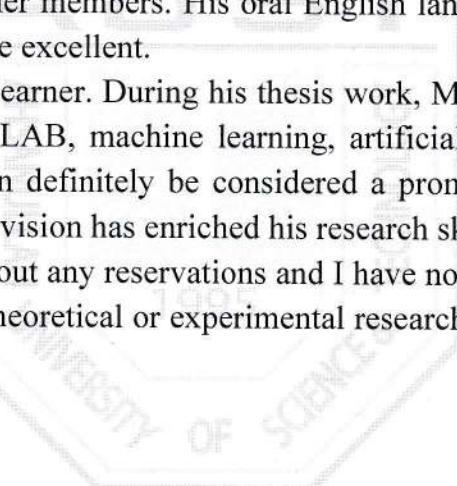
It is with the true enthusiasm that I am recommending Mr. Emon Sarkar and his desire to attend your university for the graduate programme. I have supervised his thesis at the dept. of EEE of Ahsanullah University of Science & Technology (AUST), Dhaka, Bangladesh. He completed his B.Sc. in Electrical & Electronic Engineering from this university and received his degree certificate on August, 2019 with a CGPA of 3.652 out of 4.00.

Providing a reference for Mr. Emon is easy since I had direct contact with him during thesis works. I found Mr. Emon very sincere and punctual in thesis tasks. He has successfully completed his thesis work on the topic "Handwritten Bangla Character Recognition with Convolutional Neural Network" and obtained the highest grade (GPA 4.00 out of 4.00) in his thesis work. While working for thesis he had shown the ability to work in coordination with other members. His oral English language efficiency is fluent and his writing skill is likewise excellent.

He is a quick and competent learner. During his thesis work, Mr. Emon Sarkar showed a strong interest in C++, MATLAB, machine learning, artificial intelligence and several other related topics which can definitely be considered a promising aspect of him. His research work under my supervision has enriched his research skills.

I highly recommend him without any reservations and I have no doubt about his ability to successfully carry out either theoretical or experimental research in any field of Electrical Engineering.

I wish him all the success.


Nahyan
15.03.20

Nahyan Al Mahmud

Assistant Professor

Department of Electrical & Electronic Engineering

Ahsanullah University of Science & Technology

141-142, Love Road, Tejgoan Industrial Area, Dhaka-1208, Bangladesh

Mobile: +8801670991257

Email: nahyan.eee@aust.edu



To Whom It May Concern

I have the pleasure of writing this recommendation for **Mr. Emon Sarkar**, who is known to me for the past three years. He attended in two of my undergraduate courses (Digital Electronics-II and VLSI-I). During the period of my association with him, I have had the opportunity to assess his ability to understand the basic concepts of engineering and apply them to solve the problems associated with the course. He graduated from this university in Fall, 2019 with a CGPA of 3.65 on a scale of 4.0.

As a student, Mr. Sarkar was highly motivated and perceptive. I always found him on the lookout to learn something new. His ability to explain basic engineering concepts as well advanced engineering topics is considerably admirable. He was attentive and punctual in his studies and did very well in the sudden class quizzes and assignments. He consistently improved his academic results, which shows his ability to identify mistakes & work hard for further improvement.

Apart from his regular studies, he has participated in inter-university tech competition. He is capable of adapting himself in different challenging circumstances which will surely help him in his future endeavors. Furthermore, his ability to communicate and formulate ideas in English is considerably better.

I strongly recommend him to be considered as a potential candidate for admission to the graduate program in your esteemed university.

I wish him all the success in life.

Sincerely,



15-03-2020

Dr. Satyen Biswas
Professor
Dept. of Electrical and Electronic Engineering
Ahsanullah University of Science and Technology
Dhaka-1208, Bangladesh

Tel: 880-2-887-0422 ext. 607

Fax: 880-2-887-0417

Email: sbiswas.eee@aust.edu / sbiswas@linuxmail.org



Recommendation Letter

I have the pleasure of writing this letter of recommendation for Mr. Emon Sarkar, who is known to me for four years as an undergraduate student. He has graduated from Ahsanullah University of Science and Technology in Electrical and Electronic Engineering with a good CGPA of 3.652 out of 4. During the undergraduate studies, I was his course instructor for the Multimedia Communications course (EEE 4295) in which he performed exceedingly well and obtained a score greater than 80%.

For the period of my association with Mr. Sarkar, I have always found him to be extremely sincere with his studies and also highly passionate about learning new things. His attentive demeanor in the classroom was evident from his continuous participation in answering the questions that were asked during the lectures.

The medium of instruction during his studies has always been English, which makes him an articulate speaker and user of both formal and informal English.

Mr. Sarkar has always shown perseverance and integrity in his work, whether it be an assignment or a group project. I believe that he has the potential to reach great heights if he is provided with the proper guidance and facilities. Therefore, I strongly recommend him as a potential candidate for the graduate program at your esteemed institution.

I wish him all the success in life.

Please feel free to contact me if you have any further queries.

Sincerely,


Md. Jakaria Rahimi
Assistant Professor
Department of Electrical and Electronic Engineering
Ahsanullah University of Science and technology (AUST)
mjrahimi@gmail.com, mjrahimi.eee@aust.edu.
cell_phone: +88 01711272286

CERTIFICATE

This certifies that

Emon Sarkar

has satisfactorily completed the course of study in
Artificial Intelligence with Python

PROFESSIONAL CERTIFICATE PROGRAM

Awarded Date

03/01/2021

Alper Karakus

President – Open Learning, AEU



Ursula Hermann

Director – Continuing Education, AEU



THE AMERICAN CENTER
EMBASSY OF THE UNITED STATES OF AMERICA
DHAKA, BANGLADESH

presents this

Certificate of Completion

to

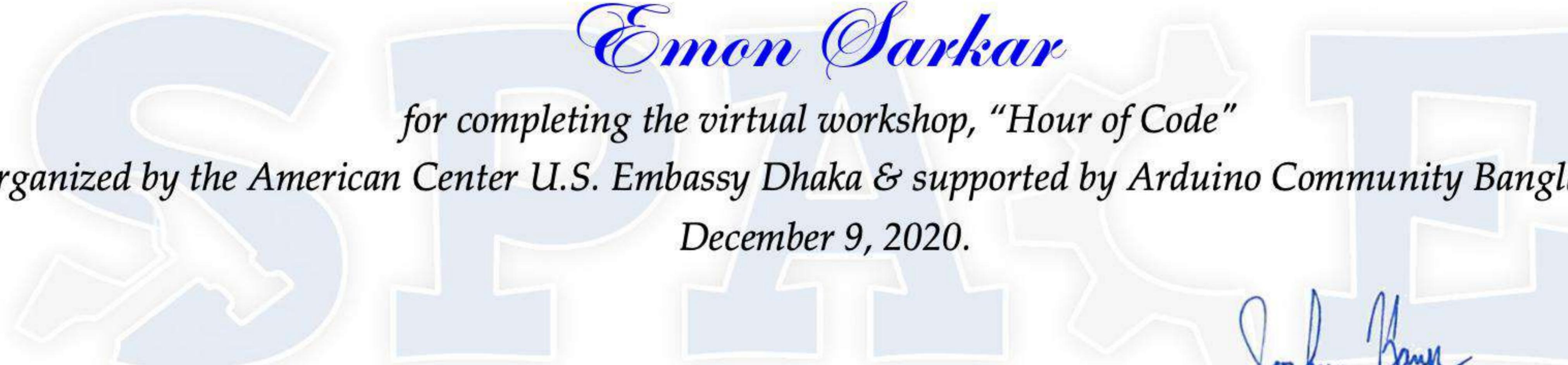
Emon Sarkar

for completing the virtual workshop, "Hour of Code"

organized by the American Center U.S. Embassy Dhaka & supported by Arduino Community Bangladesh,

December 9, 2020.

Date: December 10, 2020
U.S. Embassy Dhaka


Joshua Kamp
Joshua Kamp
Cultural Affairs Officer

Certificate of Excellence

awarded to

Emon Sarkar

for successful completion of

Best Practices for
Biomedical Research Data Management

Elaine R Martin

Principal Investigator
12/27/2020



Certificate

This is to certify that:

Emon Sarkar

Has successfully passed the certification exam for

Cyber Security Foundation

Professional Certificate

Based on CyBOK version 1.0

CSFPC™



MANAGING DIRECTOR

Certification Date

December 18, 2020

Certification ID

53799402

Expiration Date

December 18, 2022



Certificate

This is to certify that:

Emon Sarkar

Has successfully passed the certification exam for

Remote Work and Virtual Collaboration Professional Certificate

RWVCPC™



Bing Qin
MANAGING DIRECTOR

Certification Date: January 26, 2021
Certification ID: 56128110
Expiration Date: January 26, 2023



**REMOTE
WORK AND
VIRTUAL
COLLABORATION
PROFESSIONAL
CERTIFICATE
RWVCPC™**

Certificate

This is to certify that:

Emon Sarkar

Has successfully passed the certification exam for

Scrum Foundation Professional Certificate SFPC™



Binu Binu
MANAGING DIRECTOR

Certification Date April 16, 2021
Certification ID 61691988



SCRUM FOUNDATION PROFESSIONAL CERTIFICATE SFPC™

Introduction to Cybersecurity

For completing the Cisco Networking Academy® Introduction to Cybersecurity course, and demonstrating the ability to explain the following:

- Global implications of cyber threats
- Ways in which networks are vulnerable to attack
- Impact of cyber-attacks on industries
- Cisco's approach to threat detection and defense
- Why cybersecurity is a growing profession
- Opportunities available for pursuing network security certifications



Laura Quintana
VP & General Manager, Cisco Networking Academy

Emon Sarkar

Student

1 Mar 2021

Date

Introduction to Packet Tracer

For completing the Cisco Networking Academy® Introduction to Packet Tracer course.



Laura Quintana
VP & General Manager, Cisco Networking Academy

Emon Sarkar

Student

11 Apr 2021

Date



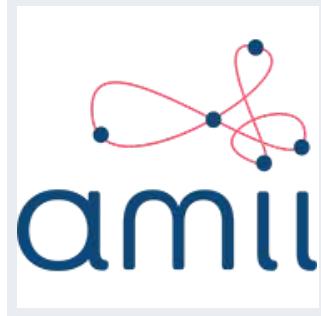
4 Courses

Introduction to Applied Machine Learning

Machine Learning Algorithms: Supervised Learning Tip to Tail

Data for Machine Learning

Optimizing Machine Learning Performance



Nov 7, 2020

EMON SARKAR

has successfully completed the online, non-credit Specialization

Machine Learning: Algorithms in the Real World

This specialization is for professionals who have heard the buzz around machine learning and want to apply machine learning to data analysis and automation. Whether finance, medicine, engineering, business or other domains, this specialization will set you up to define, train, and maintain a successful machine learning application.

Anna Koop
Senior Scientific Advisor
Alberta Machine
Intelligence Institute,
University of Alberta

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at:
coursera.org/verify/specialization/TE2WT7E7TKHP



5 Courses



19.09.2020

EMON SARKAR

has successfully completed the online, non-credit Specialization

Python 3 Programming

This specialization teaches the fundamentals of programming in Python 3. We will begin at the beginning, with variables, conditionals, and loops, and get to some intermediate material like keyword parameters, list comprehensions, lambda expressions, and class inheritance. You will have lots of opportunities to practice. You will also learn ways to reason about program execution, so that it is no longer mysterious and you are able to debug programs when they don't work. By the end of the specialization, you'll be writing programs that query Internet APIs for data and extract useful information from them. And you'll be able to learn to use new modules and APIs on your own by reading the documentation. That will give you a great launch toward being an independent Python programmer.

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Stephen Oney Paul Resnick

Steve Oney
Assistant Professor
School of Information

Paul Resnick
Michael D. Cohen
Collegiate Professor
School of Information

Jaclyn Cohen

Jaclyn Cohen
Lecturer
School of Information

Christopher Brooks

Christopher Brooks
Research Assistant
Professor
School of Information

Verify this certificate at:
coursera.org/verify/specialization/CQFUQZDN98FZ



5 Courses

Programming for Everybody
(Getting Started with Python)

Python Data Structures

Using Python to Access Web
Data

Using Databases with Python

Capstone: Retrieving,
Processing, and Visualizing Data
with Python



08/16/2020

EMON SARKAR

has successfully completed the online, non-credit Specialization

Python for Everybody

This Specialization builds on the success of the Python for Everybody course and will introduce fundamental programming concepts including data structures, networked application program interfaces, and databases, using the Python programming language. In the Capstone Project, you'll use the technologies learned throughout the Specialization to design and create your own applications for data retrieval, processing, and visualization.

A handwritten signature in black ink that appears to read "Charles".

Charles Severance
Clinical Associate
Professor, School of
Information
University of Michigan

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at:
coursera.org/verify/specialization/2MMZK5JF65ZC

Verified Certificate



Rav Ahuja

AI and Data Science Program Director

IBM



Upkar Lidder

Senior Developer Advocate

IBM

This is to certify that

Emon Sarkar

successfully completed and received a passing grade in

**CAD101EN: Introduction to Cloud Development
with HTML, CSS, and JavaScript**

a course of study offered by IBM, an online learning
initiative of IBM.



Verified Certificate

Issued May 8, 2021

Valid Certificate ID

6c0dda68adc04cf69a1c9ed01ad69837

Verified Certificate

A handwritten signature in black ink.

Rav Ahuja

AI and Data Science Program Director

IBM

This is to certify that

Emon Sarkar

successfully completed and received a passing grade in

CC0101EN: Introduction to Cloud

a course of study offered by IBM, an online learning
initiative of IBM.

**Verified Certificate**

Issued April 28, 2021

Valid Certificate ID00c9bbfb72c84ffc8316543fb56c3dd7

Verified Certificate

A handwritten signature in black ink.

Joseph Santarcangelo

Data Scientist

IBM

This is to certify that

Emon Sarkar

successfully completed and received a passing grade in

PY0101EN: Python Basics for Data Science

a course of study offered by IBM, an online learning
initiative of IBM.



Verified Certificate

Issued April 12, 2021

Valid Certificate ID

744528ad763f4f139b2c05411ddd853c



— CERTIFICATE —

EMON SARKAR

PARTICIPATED IN

Microsoft AI Classroom Series

10-03-2021

Date of issue

Rohini Srivaths

Rohini Srivaths
National Technology Officer
Microsoft India

Amit Aggarwal

Amit Aggarwal
CEO IT ITeS SSC
NASSCOM



Certificate of Participation

This is to certify that

Emon Sarkar

has successfully completed an
online course developed by Directorate General of Health Services and offered through MuktoPaath on
Coronavirus Disease (COVID-19).

DR. MD. ABDUL MANNAN, PAA
Project Director (Additional Secretary)
Aspire to Innovate (a2i) Programme
Information & Communication Technology Division



MC-Z311035S522281K236E

PROFESSOR DR. ABUL KALAM AZAD
Director General
Directorate General of Health Services

ISO/IEC 27001 INFORMATION SECURITY ASSOCIATE™

HEREBY WE ARE PROUD TO AWARD OUR STUDENT

EMON
SARKAR

ACCREDITED PROFESSIONAL CERTIFICATION

IN TESTIMONY THEREOF, AFTER FORMAL EVALUATIONS, WE CONFIRM
THE DEMONSTRATED KNOWLEDGE AND OUTSTANDING SKILLS IN THE
SUBJECT MATTER EXPERTISE OF THIS PROFESSIONAL CERTIFICATION.

27 FEBRUARY 2021

DATE

Yeliz Obergfell

AUTHORIZED SIGNATURE

SKILLFRONT

96708204095085

AUTHORIZED CERTIFICATION ID

CERTIFIED ASSOCIATE IN SCRUM FUNDAMENTALS (CASF)

HEREBY WE ARE PROUD TO AWARD OUR STUDENT

EMON
SARKAR

ACCREDITED PROFESSIONAL CERTIFICATION

IN TESTIMONY THEREOF, AFTER FORMAL EVALUATIONS, WE CONFIRM
THE DEMONSTRATED KNOWLEDGE AND OUTSTANDING SKILLS IN THE
SUBJECT MATTER EXPERTISE OF THIS PROFESSIONAL CERTIFICATION.

21 FEBRUARY 2021

DATE

Yeliz Obergfell

AUTHORIZED SIGNATURE

SKILLFRONT

73221698041383

AUTHORIZED CERTIFICATION ID

ISO/IEC 20000 IT SERVICE MANAGEMENT ASSOCIATE™

HEREBY WE ARE PROUD TO AWARD OUR STUDENT

EMON
SARKAR

ACCREDITED PROFESSIONAL CERTIFICATION

IN TESTIMONY THEREOF, AFTER FORMAL EVALUATIONS, WE CONFIRM THE DEMONSTRATED KNOWLEDGE AND OUTSTANDING SKILLS IN THE SUBJECT MATTER EXPERTISE OF THIS PROFESSIONAL CERTIFICATION.

01 MAY 2021

DATE

Yeliz Obergfell

AUTHORIZED SIGNATURE

SKILLFRONT

65867401165643

AUTHORIZED CERTIFICATION ID

Issued: 2021-02-13

Certificate ID: ojulm99scb

CONGRATULATIONS

Emon Sarkar

ON BEHALF OF UPVERTER EDUCATION

FOR COMPLETING ENGINEERING ESSENTIALS UNIT 1

UNIT 2: CIRCUITS AND SCHEMATICS

Issued: 2021-02-19

Certificate ID: 7xr7qroyjq

CONGRATULATIONS

Emon Sarkar

ON BEHALF OF UPVERTER EDUCATION

FOR COMPLETING ENGINEERING ESSENTIALS UNIT 2

UNIT 3: PCB LAYOUT



Issued: 2021-02-19

Certificate ID: mlyyzhje2f

CONGRATULATIONS

Emon Sarkar

ON BEHALF OF UPVERTER EDUCATION

FOR COMPLETING ENGINEERING ESSENTIALS UNIT 3

UNIT 4: PCB MANUFACTURING

