Shamikh Hossain

GitHub : **shamikh-mill** | Websites: **shamikh.tech** & **blog** | LinkedIn : **shamikh** | Contact : **shamikh.hossain@duke.edu** | (469) 386-1378

Experience

Carin Lab at Duke University | Durham, NC | Research Assistant
November 2017 - Present

Analyzing echocardiogram video data from Duke Hospital using deep-learning under the supervision of Dr. Lawrence Carin and Dr. Ricardo Henao.

Duke University Energy Data Analytics Lab | Durham, NC | Research Fellow
May 2017 - Present

Designed and implemented an **end-to-end machine learning pipeline** that streamlines data acquisition, evaluation and conversion in Python for end goal of modeling electrification rates **directly from aerial imagery**; worked in a team to curate a training dataset using image processing libraries, scikit-learn, Matlab, and ArcGIS. Currently continuing research to implement deep-learning model and develop georeferenced **electricity access maps** for developing regions.

Duke Office of Information Technology | Durham, NC | IT Consultant
September 2016 - June 2017

Worked in a team using ServiceNow CRM platform to provide tailored **software and hardware support** for all computing in the Biology department by researching technical issues, writing internal and external documentation

Dallas Area Model United Nations | Dallas, TX | President & Tech Lead
May 2015 - May 2016

Supervised 20 member-team to organize Model UN conference for high school students in Dallas metroplex. Managed **~$11,000 budget**, built **web portal** and social media platform, implemented **merit-based team selection**

Education

Duke University, Durham, NC - **B.S, Computer Science, B.S, Economics**
August 2016 - May 2020

Projects

Biology IT Inventory - Web platform and REST API built on Django, PostgreSQL to track loaner equipment inventory and users for the Duke Biology IT helpdesk

Politiquette - A Chrome browser extension that displays on-hover interest group ratings for selected issues for US Senators mentions on a page. (Flask/JS)

HitChecker - Python/Tkinter program using Amazon Mechanical Turk API to allow a user to efficiently evaluate crowdsourced image annotation data

DAMUN Website - Created new conference website for Model UN school organization, website was awarded grant from UN Foundation of America

Web Tutorial Series - maintained YouTube channel of tutorials on computer software and graphic design, accumulated 185,000+ video views

Skills

Software: Python, Java (experienced) Ruby, C, MIPS Assembly (familiar)

Data: NumPy, SciPy, pandas, Excel, Matlab, scikit-learn, TensorFlow, matplotlib, R, Jupyter

Web: HTML/CSS, JavaScript, Rails, Django, Flask, Node.js

General: Git, Linux, Google Cloud Platform, AWS, Heroku

Courses

Data Structures & Algorithms, Microeconomics, Computer Architecture, Linear Algebra for Computer Science, Multivariable Calculus for Economics, Energy Data Analytics Lab, Introduction to Computer Science

Independent Coursework:
Lynda: Django
Enthought: NumPy

Recognition

University Dean's List
National AP Scholar
International Baccalaureate
Diploma Recipient
Burger King Scholar
YouTube Partner
3rd Place; Microsoft Coding
Competition at Duke (tied)