

Shamikh Hossain

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Experience

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

Working to apply deep-learning techniques on medical imagery from Duke Hospital, advised by Dr. Lawrence Carin of the Information Initiative at Duke.

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

Contributed to design of **end-to-end machine learning pipeline**, streamlining 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

Duke Student Organization Finance | Durham, NC | Auditor
September 2016 - Present

Analyze consumption metrics of campus organizations to help school administration **determine optimal allocation** of resources

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 Biology IT

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)