

# Shamikh Hossain

GitHub : [shamikh-mill](#); Blog : [shamikh.tech](#); LinkedIn : [shamikh](#); Contact : [shamikh.hossain@duke.edu](mailto:shamikh.hossain@duke.edu); (469) 386-1378

## experience

**Energy Data Analytics Lab, Duke University— Research Fellow**  
May 2017 - Present

I helped design an **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 to curate a **training dataset** using image processing libraries, sklearn, Matlab, and ArcGIS. Currently continuing research to implement deep-learning model and develop georeferenced **electricity access maps** for developing regions of interest.

**Office of Information Technology, Duke Biology— IT Consultant**  
September 2016 - June 2017

Work 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

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

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

**General:** Git, Linux, scripting

## courses

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

**Independent Coursework:**

Lynda: Django

Enthought: NumPy

## other

University Dean's List  
National AP Scholar  
IB® Diploma Recipient  
Burger King Scholar  
YouTube Partner