

Ivan Chowdhury

95-02 90th Avenue New York, NY 11421 | (347)-257-0560 | chowdhur@cooper.edu |
Linkedin: [linkedin.com/in/ivanchowdhury](https://www.linkedin.com/in/ivanchowdhury) | GitHub: github.com/IChowdhury01

Education

Cooper Union for the Advancement of Science and Art

Bachelor of Electrical Engineering, focus in Computer Engineering

Honors: Innovator's Merit Scholarship, National Society of Collegiate Scholars nominee, Dean's List

New York, NY

Expected May 2020

Projects

Smart Home Automation IoT Application

2019 - Present

- Developing an Android application using Java and Raspberry Pi, allowing for users to remotely communicate with and control hardware devices and other materials within their homes.
- Utilizes sensors alongside the Raspberry Pi computer to record, process, and transmit information from home devices to the software application.

MATCH: Friend-Matching Application

2019

- Developed a web application in Java that allows users to input their hobbies and person information, then get matched with users in their area with similar interests.
- Designed and implemented a database to store personal information, and a friend-matching algorithm to compute optimal matches.

Transfer Protocol

2019

- Developed a TCP-fair transport layer protocol in Python, that can transmit bits over an unreliable, noisy channel at high speeds.

TCP Port Scanner

2019

- Built a Python application that scans a specified port range on a target host and identifies the open ports.
- Implemented a feature that identifies the name of the protocol in use, if detected on its default port.

Unix Shell

2018

- Created a UNIX shell in C. The program launches a program of choice, with arguments, and reports resource usage statistics.

Vector Orthonormalization Calculator

2018

- Created a calculator in MATLAB that performs the Gram Schmidt Orthonormalization process on an array of linearly independent vectors.
- Implemented a feature that tests the orthogonality of input vectors, then projects and plots them onto an orthonormal basis.

Experience

Intern Researcher, CUNY York College STEM Research Center, Jamaica, NY

Summer 2015

- Comparatively analyzed beach sand deposits from Far Rockaway and Montauk Point, New York, using geology laboratory tools.
- Presented results at the York College Undergraduate and High School Research Symposium.
- Published research in the official GSA scientific journal, and presented at the Baltimore annual GSA meeting.

Activities

Cooper Union Toastmasters

2017 - Present

- Assisted in creating a community to make students more comfortable with public speaking and presentation.
- Frequently participated in public speaking practice seminars.

Google Students Club

2017 - Present

- Collaborated with faculty and Googlers to host events on campus, ranging from guest speakers to recruiting events and office visits to Google NYC.

Institute of Electrical and Electronics Engineers (IEEE)

2016 - Present

- Represented the Cooper Union alongside other students in IEEE events held within our region.

Technical Skills

- Languages: Java, Python, C++, C, MATLAB, CSS3, HTML5
- Operating Systems: Linux, Microsoft Windows (XP, 7, 10)