# ERIN WALK

Cambridge, MA ewalk@mit.edu

#### **EDUCATION**

## Massachusetts Institute of Technology, Cambridge MA

Current

**Doctoral Student** 

Social and Engineering Systems

## Harvard University, Cambridge MA

May 2017

Bachelor's Degree, Mechanical Engineering

Minor in Government-International Relations

# Bethesda-Chevy Chase High School, Bethesda MD

May 2013

High School Diploma

## ACADEMIC ACHIEVEMENTS AND FELLOWSHIPS

NSF Graduate Research Fellowship 2021

Michael Hammer Fellow 2019

MIT Summer Research Program Intern 2016

Phi Beta Kappa Senior 48, Cum Laude, John Harvard Scholar 2014 and 2015, Detur Book Prize 2014

AFCEA and Parsons undergraduate scholarships for excellence in engineering

#### **PROJECTS**

#### Social Media, Conflict, and Displacement in Syria

2020 - 2021

Research Assistant to Professor Fotini Christia, MIT Political Science and Assistant Professor Kiran Garimella, Rutgers Library and Information Science. Analyzing data from social media sources, including Twitter, Telegram, and Facebook, to understand narratives around violence and refugee return in Syria.

#### Perovskite Solar Cells with Graphene Electrodes

2016

Research Assistant for Professor Jing Kong, MIT Nanomaterials and Electronics Group. Worked on fabricating perovskite solar cells, including developing a novel two step deposition process to improve distribution. Culminated in a poster presentation.

## Automated Drone Flight

201

Mentored by Professor Evelyn Hu (Harvard), Professor Ling Shi and Professor Kei May Lau (HKUST). Joint Harvard- Hong Kong University of Science and Technology team project to design and implement a drone delivery system featuring automated flight features and tracking on a mobile application. Culminated in a final presentation, report, and demonstration.

# CONFERENCES AND PUBLICATIONS

Refugee Migration and Return on Social Media presented at Politics and Computational Social Science (PaCSS) Conference 2021, Text as Data Association (TADA) Conference 2021, and accepted at MPSA 2022.

Social Media Narratives on Conflict from northern Syria presented at 16th Annual Households in Conflict Network (HiCN) Workshop on Social Unrest and Violent Conflict in Times of Pandemics 2020, MPSA 2021, APSA 2021, and PaCSS 2021.

#### ACADEMIC AND MENTORSHIP EXPERIENCE

## Harvard University, Cambridge MA

Fall 2021 - Present

Mather House Resident Tutor

Engage with students to create a welcoming house community. Act as an academic advisor for sophomores.

## Massachusetts Institute of Technology, Cambridge MA

Current

SES GAAP (Graduate Application Assistance Program) Mentor

Advocated for, organized, and assisted with my department's first two years of offering application assistance to prospective students from underrepresented backgrounds.

# Harvard University, Cambridge MA

2019 - 2021

Mather House Faculty Dean Aide

Worked with the Faculty Deans, resident tutors, and house staff to create a warm and welcoming environment in Mather House. Engaged with students and organize and run house events.

# Harvard University, Cambridge MA

2014 - 2017

Teaching Roles

Math 1b: Calculus, Series and Differential Equations Course Assistant 2014-2015. Taught weekly problem solving sessions and staffed the Math Question Center.

Physics 15a: Introductory Mechanics and Relativity Grader 2017

Math 21a: Multi-variable Calculus Tutor 2014

#### **SKILLS**

Software Python, R, C++, MatLab (working), SQL (working)

Modeling and Experimental SolidWorks, COMSOL, Machine shop

Clean Room and Glove Box procedure

Other MS Office, LATEX, CPR certified

## GRADUATE COMMITTEES

# IDSS Student Council Inaugural DE&I Officer

Current

Member at large of the IDSS Student Council working on DE&I Initiatives.

IDSS REFS

Current

Member of the inaugural set of IDSS REFS, Resources for Easing Friction and Stress, providing confidential peer support. Participating in the early stages of setting up this program.

#### MIT Policy Hackathon Organizing Committee

Summer - Fall 2020

Director of External Affairs

Recruited speakers, judges and participants for the 2020 MIT Policy Hackathon. Developed a connection between the programming and our theme of Equity and Engagement.

#### IDSS Task force on Diversity, Equity and Inclusion

Summer 2020

#### WORK EXPERIENCE

Cloudflare, Inc 2017 - 2019

 $Policy\ Analyst$ 

Member of a four person global policy team. Researched current policy initiatives and their impact on cybersecurity and company practices. Spoke with lawmakers and experts to understand their viewpoints and further company interests. Organized, automated and ran day-to-day operations for corporate social responsibility projects.

# REFERENCES

Available upon request.