

# Andey Ng

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## Education

### Carnegie Mellon University

- B.S. in Information Systems
- B.S. in Engineering and Public Policy (*planned*)
- Minors: Machine Learning, Human-Computer Interaction

Pittsburgh, PA  
December 2021

## Professional Experience

### Verizon Media—Yahoo

#### Software Engineering Intern

- Published paper on developing machine learning pipelines in site reliability engineering tools to classify cross-metric statistics and queries
- Modeled reduction of incidents by up to 380% by automating debugging methods that identify failure details in the email application stack

Sunnyvale, CA  
May 2020 – Sept 2020

### Carnegie Mellon University's Human Interaction Institute

#### Machine Learning Research Assistant

- Using Machine Learning techniques to identify false/true positive rates within fairness toolkits to quantify and mitigate AI biases
- Design user studies to measure group fairness in post-processing algorithms to give feedback for Microsoft and IBM open-source kits

Pittsburgh, PA  
Aug 2020 – Present

### Carnegie Mellon University's Center for International Relations and Politics

#### Data Science Research Assistant

- Conducted Natural Language Processing analysis with Python and R to identify Senator's sentiments through speech texts regarding policies
- Topic Modeled, Data Parsed, and Web Scraped newspaper articles and speeches with Python on online databases API to develop a computer-aided program that indicates latent variables of international relationships during the Cold War to predict turbulent national crisis

Pittsburgh, PA  
Jan 2019 – May 2019/Aug 2020 – Present

### Carnegie Mellon University's Learning Sciences Lab

#### User Experience Research Assistant

- Designed user tests that enhance users' trust of cognitive tutoring program between AI system, teachers, and students for peer collaboration
- Prototyped dashboards to vet biases in stakeholders such as teachers in designing fair algorithms and ethical policies and protocols

Pittsburgh, PA  
Jan 2020 – Aug 2020

### Unum Insurance Company

#### Cybersecurity Intern

- Developed and deployed honeypot Deceptors on Symantec software that generate alert systems when hackers penetrate the network
- Used Python and Splunk's Machine Learning Tool Kit to blacklist threats and automate alert processes for the Incident Report Handling Team

Portland, ME  
May 2019 – Aug 2019

### Carnegie Mellon University's Future Interface Group Lab

#### Computer Vision Research Assistant

- Applied Computer Vision and Machine Learning algorithms to help PhD students research, test, and develop classroom technology
- Used OpenCV's ArUco markers on Virtual Reality headsets to further *Simultaneous Location and Mapping* and Stereo Depth Vision research

Pittsburgh, PA  
Jan 2019 – May 2019

## Leadership

### Project Rwanda Service Organization

#### President

- Organizing service initiative to design and teach a two-week technology literacy workshop for Rwandan teachers in collaboration with Carnegie Mellon's Rwanda and Qatar campuses to create a sustainable, ethical impact on the local Rwandan community
- Developing a curriculum to forge deeper discussions among members regarding respectful, ethical service-learning practices and Rwandan culture

Pittsburgh, PA  
Sep 2018 – Present

### Residential Education

#### Resident Advisor (RA)

- Organizing two weekly programming events (70+ events per year) for my residential hall that open a dialogue regarding cultural competency, knowledge sharing, intellectual curiosity to subconsciously create empathy and solidarity among residents with diverse backgrounds, disciplines, and expertise
- Fostering supportive, conducive, and cohesive collegial environment by tailoring individual connections with residents based on each of their needs

Pittsburgh, PA  
Aug 2019 – Present

### East Coast Asian American Student Union

#### Marketing and Outreach Conference Team Member

- Organized conference to educate and empower 3000+ students regarding Asian American Pacific Islander (AAP) issues for social justice and equality
- Collaborated with conference team to design workshops for participants to raise awareness and drive innovative advocacy solutions

Pittsburgh, PA  
Aug 2019 – May 2020

## Technical Skills

### Programming Languages

- Python
- C
- Java
- Javascript
- HTML/CSS
- Linux/Unix
- SQL
- Ruby

### Frameworks

- Rails
- Jekyll
- Node.js
- React

### Software

- CAD
- Splunk
- Jira
- Git
- Figma
- Microsoft Office
- REST APIs
- Pytorch/Tensorflow

### Skills

- Full-stack Development/Databases
- Data Parsing/Data Science
- Product Prototyping/Design
- Cybersecurity Incident Report Handling