### CHRISTINE CHUNG

Data Scientist trained in public policy that can both code and communicate. I'm passionate about using data and technology to help solve social and civic problems.

# PROFESSIONAL EXPERIENCE

#### **DATA SCIENTIST**

Meetup | New York, NY

Jan 2018 – Present

- Leveraged NLP and topic modeling to build Meetup's first group auto-categorization model
- Developed a community score using concepts from network theory to analyze the importance of interpersonal relationships on the success of groups
- Wrote and promoted adoption of the Meetup <u>Manifesto for Data Practices</u>, guidelines for using data ethically and responsibly
- Advised product team on the creation and launch of a new group reputation system, including support with split testing, analysis, and data ingestion
- Helped migrate the data pipeline from an ELT system that relied on Redshift to an ETL system leveraging Airflow and Pyspark, reducing total runtime by 50%
- Managed data tooling for non-technical users including data modeling and dashboard creation in Looker and the development of a data dictionary

#### MACHINE LEARNING ENGINEER

Meetup | New York, NY

Jul 2017 - Jan 2018

- Responsible for end-to-end production machine learning stack, including research, modeling, feature engineering, documentation, and serving scalable machine learning products
- Conceptualized and scoped a new event quality model, presented findings to stakeholders, and secured alignment and buy-in
- Researched and monitored the impact of our recommendation models on different age, gender, location, and group segments
- Developed and maintained personalized event and group recommendations API

#### DATA SCIENCE & SOFTWARE ENGINEERING RESEARCH ASSISTANT

CrimeScape | Chicago, IL

Aug 2016 - Jul 2017

- Front and back end development of user-facing web app to map and explore crime predictions for different cities using React, Django, Leaflet, and PostgreSQL
- Developed an automated and scalable pipeline for continual data collection, transformation, and prediction generation using bash, Python, PostgreSQL, AWS, and R

#### SOFTWARE PRODUCT MANAGER & RESEARCH ASSISTANT

Center for Robust Decision Making on Climate and Energy Policy (RDCEP) Computation Institute | Chicago, IL

Jan 2016 - June 2016

- Product management for cloud platform to discover and explore large climate datasets
- Developed project scope and user requirements through user interviews with computer science, climate, and social science researchers
- Assisted with back and front end development using PostgreSQL, Python, and JavaScript

#### INTERNATIONAL PROJECT COORDINATOR

Education Development Center, Inc. | Waltham, MA

Dec 2013 - Aug 2015

- Coordinated multi-million dollar USAID funded projects in the Philippines and Liberia
- Established data collection and analysis protocols for monitoring and evaluation
- Wrote quarterly reports, including policy recommendations and data visualization

#### **EDUCATION**

#### M.S. Computational Analysis and Public Policy

2017

 $Harris\ School\ of\ Public\ Policy,\ University\ of\ Chicago$ 

Chicago, IL

#### **B.A. Social Thought and Political Economy**

University of Massachusetts

2013 Amherst, MA

#### A.A. Renewable Energy & Energy Efficiency

2011 Greenfield Community College

2011 Greenfield, MA

#### **SKILLS**

#### **Analysis**

Machine learning, predictive modeling, topic modeling, experimentation, data visualization

#### **Programming Languages**

- Proficient: Python, SQL
- Basic: Scala, Java, JavaScript, Swift, Bash

#### **Technologies & Software**

- Statistical Software NumPy, SciPy, pandas, Jupyter, R
- Machine Learning & NLP scikit-learn, mllib, Gensim, NLTK
- Big Data PySpark and Spark-Scala
- Cloud Computing: AWS (RDS, EMR, EC2), Google Cloud
- Orchestration Airflow
- Database Redshift, MySQL, PostgreSQL, Elasticsearch
- Platforms Windows, Mac, and Linux
- Version Control Git, Github
- BI & Visualization Looker, Tableau, Kibana

#### **FELLOWSHIPS**

#### Chicago Mayoral Fellow

Office of the Mayor, City of Chicago, IL (June – Dec 2016)

Delivered policy recommendations, data analysis and visualizations, and GIS maps to Mayor's staff for projects focused on driverless vehicles, public safety, absenteeism, and building efficiency.

#### **Fulbright-Hays Fellow**

Xi'an, Shaanxi, China (Jan – Aug 2013)

Conducted qualitative research on differences between American and Chinese business culture, interned at an automation start-up, and led cultural exchanges to local schools.

## SELECTED PROJECT

### Bias Detection in Chicago Police Misconduct Investigations

Research, Spring 2016

Python, scikit-learn, PostgreSQL, Pandas, NumPy, PostGIS, Shapely

Used supervised machine learning to detect bias in the outcomes of police complaints. Compared the effectiveness of different models trained on "biased" and "unbiased" feature sets, i.e. selectively withholding complainant demographic data.

## LEADERSHIP & VOLUNTEERING

**2016** Hillary Chicago Campaign — data wrangling for a predictive modeling of volunteerism

**2016 UChicago ScopeAthon Event Organizer** — organized hybrid hackathon/case competition to teach project scoping skills. Student teams developed solutions to data challenges for civic orgs

**South Side Civic, Co-President** — led student group focused on community building and connecting tech talent to civic organizations on Chicago's South Side, 2016 - 2017

**UChicago Civic Hackathon, Winner** — team developed a plan to improve productivity and efficiency for the Cook County Department of Facilities Management, October 2015