# THOMAS DEVINE

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#### **EDUCATION**

#### CARNEGIE MELLON UNIVERSITY

2018-2021

MS IN ECONOMICS:

Awards: \$138,000, National Science Foundation Graduate Research Fellowship in Economics

## University of North Dakota

2015-2018

B.S. Mathematics, Minor in Statistics; BA Economics; GPA 3.78 Awards: McNair Scholar; speaker at UND's Phi Beta Kappa induction ceremony

#### WORK AND RESEARCH EXPERIENCE

## Carnegie Mellon University

Summer 2020

Master's Thesis

Pittsburgh, PA

· Using R and a DID framework, I modeled the adoption of Solar Panel installations and a neighbor's decision to install affects peers at the block-level; I used public Census and ACS data—see my personal website

## Carnegie Mellon University

Jan. 2020-Present

Teaching Assistant

Pittsburgh, PA

· (Graduate) Statistical Foundations for Business Analytics (46-883), 2 courses; Forecasting Time Series Data (45-912), 1 course. (Undergrad.) Political Economy (73-332), 2 courses; Overall, I answered questions in R and explained class concepts in statistics, econometrics, and economics

# Topic Modeling with Machine Learning (project in progress)

Feb. 2021-Present

· Using R (tm, openNLP), I parse comedy monologues (stand-up specials) to build a recommendation application. I use LDA, LSA, and NMF to assess topics. I map/cluster specials, topics, and comedians to defined genres of comedy and to one another. I make a functional API to showcase the project.

CNA Financial June–August 2018

Actuarial Intern - Long Term Care

Chicago, IL

· Using R, SAS, and Alteryx, I converted (SAS to Alteryx) a monthly 4-step process in that aggregates counts for incurred but not reported claims and terminated but not reported claims for group and individual polices; I converted (SAS to R) a monthly close process that aggregates claim counts

#### Carnegie Mellon University

May-July 2017

Undergraduate Researcher in Financial Math

Pittsburgh, PA

· Using R and Python, my team web-scraped put option prices into a gradient descent algorithm for chosen stocks on the DJIA and compared the efficiency of random sets of stocks to calculate error (SSE)

#### TECHNICAL AND ANALYTICAL SKILL SET

Skills R, Java, Python, Matlab, SQL, LATEX, Stata, SAS, Alteryx, Spanish (Intermediate)

IDEs: RStudio, Spyder, DBeaver, IntelliJ

Exams/Other Actuarial Exam P (01/2017)

## LEADERSHIP ROLES

CMU Club: Actuarial Science
UND Clubs: Chess, Actuarial Science, Political (VP)
President 2018–2021
President 2016–2018