# **JUSTIN TOMPKINS**

+1 404-441-7084 justin.tompkins@ucdenver.edu Denver, CO 80211 USA

#### **EDUCATION** UNIVERSITY OF COLORADO DENVER Denver, CO, 08/18-Present Ph.D. Health and Behavioral Sciences UNIVERSITY OF MICHIGAN Ann Arbor, MI, April '16 M.S.E. Mechanical Engineering (Applied Mathematics & Engineering Design) MOREHOUSE COLLEGE Atlanta, GA, May '13 B.S. Mathematics MIDDLEBURY COLLEGE LANGUAGE SCHOOLS Middlebury, VT, 06/12-08/12 Portuguese – Intermediate-Mid (Oral Proficiency Interview) **UNIVERSITY OF CALIFORNIA - BERKELEY** Berkeley, CA, 05/11-08/11 Professional Development (UC Berkeley Summer Internship Program)

### **GUEST LECTURES**

University of Colorado Denver Denver, CO, 11/19 Social Epidemiology and Genetic Epidemiology - PBHL 3001: Introduction to Epidemiology

University of Colorado Denver *Epigenetics and Global Health -* PBHL 3070: Perspectives in Global Health

Denver, CO, 03/19

### CONFERENCES

Interdisciplinary Association for Population Health Sciences - Poster Presentation Seattle, WA, 10/19 *Education, Psychological Wellbeing, and Prospective Mortality* 

#### **TECHNICAL SKILLS**

Languages – R, R Markdown, SQL, Bash, Python, MATLAB, XML, XSL, LaTeX Software – STATA, SAS SPSS, Excel, Word, PowerPoint, PC/Mac

### **RESEARCH EXPERIENCE**

University of Colorado Denver

Denver, CO, 4/19-present

Education, Psychological Wellbeing, and Prospective Mortality (Submitted for Review)

- Collaborated with coauthors on study examining the importance of psychological wellbeing in the association between education and mortality
- Led coding and data management activities relevant to the project
- Coded and managed STATA programs used to analyze project data

### Durban University of Technology

## Visiting Researcher (Department of Medical Orthotics and Prosthetics)

- Conducted research on the global trends in amputations and preventative technology
- Evaluated the needs of local medical facilities and communities to provide missing resources
- Assisted professors with preparing student projects in the field of prosthetics and orthotics

### University of Michigan

### Research Assistant - HaptiX Laboratory

- Performed a comparative study of the efficiency of air and water-powered technology for use in prosthetics
- Fabricated a device to investigate ways to improve the control and user experience of haptic technologies
- Led a group of local high school students in a design project involving elementary physics engineering concepts

### University of Michigan

## Research Assistant – Mathematics Education Laboratory

- Assisted in a study to improve performance and retention in mathematics
- Sorted data and developed spreadsheets based on responses from students and faculty
- Extracted data that represented trends in the mathematics departments in the study

### University of Michigan

## Research Assistant - Structural Dynamics and Controls Laboratory

- Conducted a literature review of peer-reviewed articles to determine the state of the art practices in the industry
- Reverse engineered vibration energy research and developed an experiment for harvesting the energy from building vibrations
- Fabricated a device to measure and convert vibration energy to usable energy

## Georgia State University

## Research Intern - Psychology of Voice and Sound Laboratory

- Developed an experiment and collected data to prove that the ability to speak is not unique to humans
- Led weekly testing of 5 subjects to determine a metric for measuring auditory comprehension
- Led a research group that discussed benchmark developments to improve research techniques / study processes and procedures

## University of Wisconsin-Madison

## Research Intern - Waisman Center

- Assisted researchers in a study involving accent reduction in second language acquisition
- Led a team of students to investigate critical developments in speech acoustics
- Led and developed a project to isolate characteristics of sound files in spectrograms using phonetics software, *Praat*

Ann Arbor, MI, 01/15-05/15

Ann Arbor, MI, 06/14-09/14

Atlanta, GA, 01/11-03/12

Madison, WI, 06/10-08/10

Ann Arbor, MI, 06/15-12/15

Durban, South Africa, 08/16-04/17

# WORK EXPERIENCE

University of Colorado Denver- Public Health

# Teaching Assistant (Introduction to Epidemiology)

- Led weekly recitations for Introduction to Epidemiology
- Assisted department faculty with development and revisions to course materials
- Led special topics lectures on the epigenetics and other fields at the intersection of biology and the environment

Colorado School of Public Health – Dean's Office

# Student Assistant

- Assisted the Dean of the Colorado School of Public Health with literature reviews, policy presentations, and submissions to academic journals
- Created a week-long training program for visiting researchers from the University of Rwanda and the University of Nairobi
- Assisted Dean's Office with revisions to orientation materials for the Colorado School of Public Health Advisory Board

### **ORTEC** International, LLC

### Implementation Consultant

- Implemented supply chain logistics software for clients based on organizational and operational needs
- Cleaned and formatted customer data using SQL, XML, and XSL
- Prepared reports for potential customers detailing how data will be used and software demonstration results

**Builder Bunch** 

### Master Builder

- Led weekly LEGO camps for children in the Atlanta metropolitan area
- Taught engineering and design principles to students from 6-12 years of age
- Assisted students in completing projects focused on application of engineering principles and improving problem solving skills

Incite Focus Laboratory / Blanche Kelso Bruce Academy

### Math Tutor and Mentor

- Led weekly tutoring sessions to help seniors and juniors finish their graduation requirements
- Assisted the facilitation of a drone flying and building program to teach youth work and life skills
- Assisted faculty in the development of their mathematics curriculum

## University of Michigan Housing

### Community Assistant

- Assisted residents with move-in and move-out procedures and updated the university's resident database with student information
- Organized community programs along with administrative staff and coworkers
- Orchestrated building access for maintenance staff while maintaining an organized record of borrowed keys and outstanding work orders

Youth Enhancement Services Georgia Lead Math Instructor

Atlanta, GA, 11/12-07/13

Atlanta, GA, 05/16-08/16

Atlanta, GA, 02/18-08/18

Denver, CO, 04/19-08/19

Denver, CO, 08/18-present

Detroit, MI, 09/15-05/16

Ann Arbor, MI, 05/14-05/15

- Led weekly sessions to improve mathematic ability of inner city students pursuing their GED
- Organized files documenting student progress / deficiencies that were used to develop improvement plans
- Led additional post-graduation sessions to prepare students for success after GED completion

# UC Berkeley Summer Internship Program

- Intern City and County of San Francisco Real Estate Division
  - Managed properties for city owned buildings in Civic Center area of San Francisco

Managed building rehabilitation project for non-profits geared toward community development Relocated city departments in spaces that satisfied needs for projected department growth

# PROJECT EXPERIENCE

# Incite Focus Laboratory

Detroit, MI, 09/15-05/16

# Designing an Engineering Education Program for Projected Growth of Organization

- Collected ethnographic data through observations, interviews, and survey design
- Developed organizational needs and design requirements to ensure needs will be met •
- Developed low-cost solutions to increase student comprehension and graduation rate in • program

# University of Michigan

# Analysis of Energy Consumption of Industrial Robots

- Researched methods used to measure energy consumption in manufacturing
- Simulated industrial robot dynamics using Matlab and Simulink software
- Analyzed the energy consumption involved in common industry practices to determine strategy to reduce energy use

## Maximizing the Profit of an Airline

- Created an optimal flight schedule to minimize flight delays
- Determined the largest fleet to be flown in an air space to maximize revenue and safety •
- Developed strategies for finding optimal combination between ticket price and demand for an • airline

# SCHOLARSHIPS AND AWARDS

Health and Behavioral Sciences Travel Award (IAPHS '19)- <b>UC Denver</b>	10/19
Teaching Fellow-University of Colorado Denver	08/20-05/21
Health and Behavioral Sciences Summer Research Award-UC Denver	05/20-08/20
Historically Black College Scholarship- <i>Middlebury College</i>	06/12-08/12
Renaissance Scholars Program-National Science Foundation	01/11-05/13
U.S. Department of Energy Scholar	01/11-05/13

Ann Arbor, MI, 01/15-05/15

Ann Arbor, MI, 01/15-05/15

San Francisco, CA, 06/11-08/11