# KAITLIN R MACIEJEWSKI

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# EDUCATION

Fairfield University

Columbia University Mailman School of Public Health

New York, NY

Master of Science: Biostatistics, Theories and Methods

Bachelor of Science: Mathematics • Minor: Engineering

Fairfield, CT May 2015

May 2019

Cum Laude • Honors Program • Thesis: Overview of Einstein's General Relativity

SKILLS

Computer Skills: RStudio, beginner SAS, GitHub, MATLAB, LATEX, beginner Python

Language Skills: English, Spanish (conversational)

## BIOSTATISTICS EXPERIENCE

# Yale University, Center for Interdisciplinary Research on AIDS

New Haven, CT

May 2018 - Present

HIV Seroconversion in St Petersburg and Kohtla-Jarve

• Cleaned and recoded large dataset in Excel and RStudio

Utilized generalized linear models and general estimating equations to investigate variables related to incidence of HIV
in survey sample

Columbia University New York, NY

Robotics Clinic, Burke Neurological Institute and Weill Cornell Medicine

May 2018 - June 2018

• Investigated data from robotic training for stroke patients related to Fugl-Meyer UE score (FM) and clinical predictors

 Visualized patient outcomes using spaghetti plots and linear models, in RStudio, to show relationships between covariates at baseline and FM change

Data Science II final project

May 2018

• In a group, utilized a public data set to find optimal method for predicting benign or malignant breast tumor

Data Science I final project

December 2017

- Coordinated with 5 peers to find data set through API, create RMarkdown website, shiny dashboard, and screencast about sentiments of US tweets
- Debugged peer's code for mapping; conflict resolution related to multiple users of repository in Github

Biostatistics Methods I final project

December 2017

- Performed model selection in SAS and recoding, model diagnostics in R-Studio
- Led group of 4 peers in writing report about variables related to hospital length of stay

### Additional Experience

# Fairfield University

Fairfield, CT

 $ReBound\ Technology,\ Research\ Assistant\ in\ Thermal\ Design\ Optimization$ 

January 2014 - May 2014

- Created code in EES to solve equations to assist in design and model of heat exchanger for refrigeration technology
- Contributed to published research on 3D manufacturing process and efficient cleaning methods for internal parts of 3D-printed pieces

Capstone Project; Overview of Einstein's General Relativity

May 2015

- Investigated Einstein's field equation in 2-dimensions; modeled behavior of test particle in presence of massive object using MATLAB software
- Reported historical background and significance of relativity in capstone paper and presented findings at Fairfield University's Sigma Xi poster presentation

#### Mathnasium - The Math Learning Center

Fairfield, CT

Center Director, Math Instructor

September 2015 - August 2017

- $\blacksquare$  Managed, supervised, and trained staff of 12 instructors
- Instructed 60 students monthly, ages 5-18 years, increased grades and test scores
- Created individualized learning plans to support students' needs; wrote monthly progress reports to inform parents of progress

#### Hubbell Incorporated

Shelton, CT

Summer Intern, Product Support Engineering

May 2014 - August 2014

- Certified product compliance with stringent environmental safety standards while ensuring adherence to protocol
- 300% more efficient in completing requests than weekly average
- Trained self on XRF analysis machine and performed analysis on entire backlog of materials
- Coordinated team of interns to create and distribute surveys, brainstorm ideas, and communicate findings to design company-wide new product development training materials

### University of Connecticut, Center for Clean Energy Engineering

Storrs, CT

Summer Research Assistant, NSF REU Program, Professor Alexander Agrics

May 2013 - August 2013

- Conducted original experiments to explore chemical combinations and techniques to create thin aerogel films for applications on solar cells
- Created Excel spreadsheet to organize variables tested and assist in identification of trends
- Presented and reported findings to lab group and program participants on bi-weekly basis

### **Publications**

Maciejewski, K., Heimer R., Barbour R., (2018). HIV incidence and its correlates among people who inject drugs in St Petersberg, and Kohtla-Jarve. In preparation.

Rua, Y., Maciejewski, K., Muren, R., Reckinger, S. M., (2014). Relationship Between the pH of Sodium Hydroxide Solution and 3D Printed Support Resin Dissolution. Zone 1 Conference, American Society for Engineering Education.

# POSTERS AND PRESENTATIONS

Capstone Project; Overview of Einstein's General Relativity

Fairfield University Sigma Xi Student Research Poster Session, 2015

Relationship Between the pH of Sodium Hydroxide Solution and 3D Printed Support Resin Dissolution Fairfield University Sigma Xi Student Research Poster Session, 2014

Fairfield University Engineers without Borders Water Chlorinator Project at Unidad Académica Campesina-Carmen Pampa, Bolivia

Fairfield University Sigma Xi Student Research Poster Session, 2014

Relationship Between the pH of Sodium Hydroxide Solution and 3D Printed Support Resin Dissolution Zone 1 Conference, American Society for Engineering Education, 2014

Relationship Between the pH of Sodium Hydroxide Solution and 3D Printed Support Resin Dissolution Fairfield University Math Department Colloquium, 2014

Relationship Between the pH of Sodium Hydroxide Solution and 3D Printed Support Resin Dissolution Society of Women Engineers Region F 2014 Conference Poster Session, 2014

# Honors and Awards

Huo Foundation Scholarship	2017 - 2019
Fairfield University Honor's Program, completed with High Distinction	2015
Fairfield University Dean's List	2102 - 2015
Pi Mu Epsilon, National Mathematics Honor Society	2015
Honorable Mention, Zone 1 Conference, American Society for Engineering Education	2014
2nd Place in Society of Women Engineers Region F 2014 Conference Poster Competition	2014
National Society of Collegiate Scholars	2013
Tau Beta Phi, Fairfield University Engineering Honor Society	2013
Fairfield University School of Engineering Bernadette and John Porter Scholarship	2013
John G Phelan Scholarship for Engineering Excellence	2013