Tyler A. Vu

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EDUCATION

University of California, San Diego
Doctor of Philosophy in Biostatistics, Anticipated June 2023

California State University, Fullerton
Bachelor of Arts in Mathematics, May 2018
Concentration: Applied Mathematics
Cognate: Statistics
GPA: 3.56
Major GPA: 3.80

PUBLICATIONS

Muhi, S., Sandico, N., **Vu, T.**, Mitra, S., Gofman, M. (2018). Multimodal Biometrics for Consumer Mobile Devices. *International Conference on Security and Management, July 2018*.

Vu, T., Smith, L. (2018*)*. Risk Parity Control Portfolio Optimization with l_1 Regularization Using Split Bregman. Manuscript submitted to the *Journal of Asset Management.*

Bergquist, S., Dominguez, A., Lin, B., Thome, J., **Vu, T.**, Rose, S. (2018). A Simple Decision Tree to Anticipate Health Inequalities with Fragile Country Status. Manuscript in preparation.

RESEARCH EXPERIENCE

Harvard T.H. Chan School of Public Health June 2018 – Present
Research Assistant
Advisor: Victor De Gruttola, Ph.D.

- Developed methods to analyze viral genetic data with the presence of missing data

California State University, Fullerton January 2017 – June 2018
Research Assistant
Advisor: Mikhail Gofman, Ph.D.

- Studied feature level fusion techniques on face and voice biometrics
- Assisted with developing a user authentication system for mobile devices

Harvard T.H. Chan School of Public Health June 2017 – July 2017
Participant in the Summer Program in Biostatistics and Computational Biology
Advisor: Sherri Rose, Ph.D.

- Analyzed and visualized socio-economic data regarding fragile and non-fragile countries
- Implemented machine learning algorithms to identify fragile countries

Southern California Coastal Water Research Project January 2017 – June 2017
Research Assistant
Advisor: Laura Smith, Ph.D.

- Used mixed-effects models to analyze spatial and temporal variations in toxicity levels of the Southern California Bight

California State University, Fullerton January 2016 – February 2017
Research Assistant
Advisor: Laura Smith, Ph.D.

- Adapted an existing portfolio optimization model by incorporating an l_1 norm

- Produced a significantly faster runtime, lower portfolio volatility, and a sparser portfolio

WORK EXPERIENCE

Southern California Coastal Water Research Project November 2016 – Jun 2018
Data Analyst Intern

- Assisted with development of a user interface that dynamically summarizes inputted data
- Used statistical programming languages to clean, summarize and visualize datasets

California State University, Fullerton August 2015 – December 2016
Supplemental Instruction Leader

- Provided additional instruction for students taking Calculus I and Calculus II
- Planned lessons and activities that reinforced class concepts

Mathnasium December 2015 – June 2016
Tutor

- Assisted elementary, middle, and high school students with mathematics homework
- Provided instruction regarding high school Calculus I, Precalculus, and Algebra II courses

CONFERENCE PRESENTATIONS

Vu, T., Smith, L. (2016). *Risk Parity Control Portfolio Optimization with l_1 Regularization Using Split Bregman*. Poster presentation at California State University, Fullerton Summer Research Symposium, Fullerton, CA.

Vu, T., Smith, L. (2016). *Risk Parity Control Portfolio Optimization with l_1 Regularization Using Split Bregman*. Poster presentation at Society for Advancing Chicanos/Hispanics and Native Americans in Science, Long Beach, CA.

Vu, T., Smith, L. (2017). *Risk Parity Control Portfolio Optimization with l_1 Regularization Using Split Bregman*. Poster presentation at California State University, Fullerton Research Symposium, Fullerton, CA.

Bergquist, S., Dominguez, A., Lin, B., Thome, J., **Vu, T.**, Rose, S. (2017). *A Simple Decision Tree to Anticipate Health Inequalities with Fragile Country Status*. Oral Presentation at the Harvard T.H. Chan School of Public Health Pipelines into Biostatistics, Boston, MA.

Bergquist, S., Dominguez, A., Lin, B., Thome, J., **Vu, T.**, Rose, S. (2017). *A Simple Decision Tree to Anticipate Health Inequalities with Fragile Country Status*. Poster Presentation at Society for Advancing Chicanos/Hispanics and Native Americans in Science, Salt Lake City, UT.

Bergquist, S., Dominguez, A., Lin, B., Thome, J., **Vu, T.**, Rose, S. (2018). *A Simple Decision Tree to Anticipate Health Inequalities with Fragile Country Status*. Poster presentation at California State University, Fullerton Research Symposium, Fullerton, CA.

HONORS AND AWARDS

Special Recognition in Undergraduate Research April 2018
Awarded by: California State University, Fullerton
Special Recognition in Undergraduate Research April 2017
Awarded by: California State University, Fullerton
Russell V. and Betty L. Benson Scholarship April 2016

Awarded by: California State University, Fullerton

SKILLS

Computer Programming Languages
Advanced in: R, Python
Proficient in: C++, MATLAB