**Tyler A. Vu tavu@ucsd.edu | (714) 904 – 9656** https://tyler-vu.github.io **EDUCATION University of California, San Diego** Doctoral of Philosophy in Biostatistics, Anticipated June 2023

**California State University, Fullerton** Bachelor of Arts in Mathematics, May 2018

Concentration: Applied Mathematics Cognate: Statistics

**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 l1 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.

• Implementing 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 l1 norm

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

**WORK EXPERIENCE Southern California Coastal Water Research Project** November 2016 – June 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* l1 *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* l1 *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* l1 *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.

**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