**Sean Vieau**

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• Website: https://svieau.quarto.pub/portfolio/

**Profile**

I am driven by a profound commitment to advance public health research with the overarching goal of maximizing human well-being while alleviating suffering. To that end, my life's mission and passion are to make a meaningful impact on the world through biostatistics.

With three years of research experience - including two years of data management and analysis - my 1.5 years of coursework in the M.P.H in Applied Biostatistics and double major in Psychology and Biology poise me with a unique blend of strong data analysis skills and deep scientific understanding that will make me an exceptional Statistical Programmer for your team.

**Skills**

Data Management and Analysis, SAS Programming, R, Python, Interpersonal Communication

Skills Showcase

Data Management Using SAS – Planned and carried out data management activities including data cleaning/quality assurance, data documentation, and analytic data set creation.

Practical Data Wrangling – Authored program in Python for automated data cleaning of essential data.

Advanced Data Analysis – Employed advanced techniques in R and SAS including multiple linear regression with confounding and interaction, logistic regression, data manipulation and resolving data issues, model selection, multiple imputation, and assessing leverage and influence of outliers

Clinical Research Informatics - SQL

President of MSU Research Club - Maintained data integrity, performed data interpretation, preparation of technical reports, manuscripts, posters, and presentations. Authored IRB submission and ensured adherence to research protocols and HIPAA compliance. Took lead in analyzing data 15 research projects over two years.

**Education**

**Metropolitan State University of Denver**

M.P.H. Applied Biostatistics In Progress (3/4 completed)

Certificate in Health Analytics and Data Science In Progress (3/4 completed)

Majors – Psychology (B.A.) and Biology (B.S.) GPA: 3.96 (Top 5%)

Minor – Chemistry Graduated: May 2019

**Relevant Coursework**

Data Management Using SAS, Statistical Computing – SAS, Clinical Research Informatics, Applied Biostatistics I & II, Advanced Data Analytics, Intro to Python Programming, Practical Data Wrangling, Epidemiology, R for Data Science, Statistical Consulting, Advanced Statistics: SPSS

**Experience**

**Professional Research Assistant – Welle BIOElectrics Lab** July 2022 – Jan 2023

* Translated complex research questions into actionable surgical and experimental insights, including achieving first visualization of voltage recording labeled neurons on campus
* Managed lab operations and led pilot experiments, establishing experimental paradigms, stimulation parameters, and performing advanced surgical techniques, ensuring compliance with university standards and maintaining research material supplies

**Professional Research Assistant – Gates Center for Regenerative Medicine** January 2021 – June 2022

* Consistently supported the securing of ongoing grants and milestones (e.g. $250,000 checkpoint)

**Solo Travel around the World** August 2019 – January 2020

**Center for Urban Education, Rachel Brazell** June 2019 - July 2019

* Tutored at-risk high school students in small groups and one-on-one, attained CPR certification

**Supplemental Instructor Leader, Organic Chemistry II – Dr. Schelble** August 2018 – May 2019

* Conducted biweekly study sessions, attained 87% passing rate for a class which historically has a Drop/Withdrawal/Failure rate of >30%.

**Intern at the Neurology Lab, University of Anschutz – Dr. Mahalingam** August 2018 – May 2019

* Conducted experiment inserting CRISPR sequence into Varicella-Zoster Virus and Simian Varicella Virus - which causes a host of neurological complications such as paraplegia and stroke. Presented poster.

**Undergraduate Research Assistant – Dr. Badanes** January 2018 – May 2019

* Analyzed psychobiological data and identified a novel publication-worthy study, with the aim of buffering those with adverse childhood experiences from a hyperactive cortisol response to a laboratory stressor.

**President - MSU Denver Psychology Research Club** May 2016 – May 2017

* Maintained data integrity, performed data interpretation, preparation of technical reports, manuscripts, posters, and presentations. Authored IRB submission and ensured adherence to research protocols and HIPAA compliance. Took lead in analyzing data of 15 research projects over two years.

**Undergraduate Research Assistant – Dr. Mortensen** August 2015 - December 2015

* Consented and debriefed participants; Collected data; Wrote manuscript; Presented poster at 2016 Rocky Mountain Psychological Association conference.

**Teaching Assistant – Dr. Schatz** February 2015 – May 2015

**Awards**

* Three-time nominee and two-time regional award winner of Outstanding Empirical Research at the Rocky Mountain Psychological Association.
* Promising Teacher Award – MSU Denver Department of Psychological Sciences, 2019
* Outstanding Student Researcher Award - MSU Denver Department of Psychological Sciences, 2019

**PROFESSIONAL PRESENTATIONS:**

**(\*faculty advisor) (\*\*regional award winner of outstanding empirical research, RMPA)**

**Professional**

Pavlova, M. , Castillo-Flores, J., Vieau, S., Velumurgan, B., McGrath, P. S., Bush, K., Hopkin, A., Bruckner, A., Kogut, I., Roop, D., Bilousova, G. (2022). *A novel preclinical model for translating an induced pluripotent stem cell therapy for the treatment of skin diseases.* A poster presented at the International Society for Stem Cell Research 2022.

* Add poster presented with Forest
* Add other poster presented with Forest
* Add paper from Forest!!!!

**Undergraduate**

Alvarez, L., Maxwell, I. A., Slagle, D. R., Howell, K. S., Hickman, H. A., & Vieau, S. (2016). *Neuroticism and mindfulness as predictors of depression and mindfulness as a moderator for depression and neuroticism.* A paper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

Howell, K., Snyders, J., Vieau, S., Davis, K., Martinez, T., Malek, J., & Gale, B. (2016). *Musical preferences as predictors of creativity*. A paper symposium presented at the annual Undergraduate Research Conference: A Symposium of Scholarly Work and Creative Projects, Denver, Colorado.

Lee, A., Vieau, S., & Stem, D. (2018). *Meditation: Effects on working memory in trauma and non-trauma individuals.* A paper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

Maxwell, I. A., Vieau, S., Haider, A., Malek, J., & Wiggins, A. (2016). *The role of gender, stress, and cognitive function.* A paper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

Mortensen, C. R\*., Cialdini, R. B., Jaeger, C. M., Jacobson, R. P., Maxwell, I. A., Vieau, S., & Neel, R. (2016). *Preventing backfire effects with trend information when using social norms for water conservation.* A poster presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

Richmond, A. S\*., Gale, B., Murphy, P., & Vieau, S. (2016). *The validity and reliability of the learner-centered syllabus scale.* A poster presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

Schneider, D. G., Stem, D., Vieau, S., & Garofalo, A. M. (2018). *Recommended physical activity and mental health.* A paper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

Schneider, D. G., Vieau, S., Kusick, M., & Hanson, T. (2017). *5-minute mindfulness meditation provides relief from state anxiety for experienced and novice meditators.* Apaper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Salt Lake City, Utah.

Snyders, J., Vieau, S., Hanson, T., & Rowland, A. (2017). *Mindfulness meditation: Threshold of an adverse effect.* A paper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Salt Lake City, Utah.

Stem, D., Lee, A., Eccles, R. D., McDonald, E., Vieau, S., & Schneider, D. (2018). *The effects of anxiety prime, state anxiety, and trauma.* A paper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

Stem, D., Ricciardelli, L., & Vieau, S. (2018). *Life satisfaction, meaning in life, and quality of life as predictors of depression in college students.* A poster presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

Vieau, S., Mahalingam, R. (2018). *Using CRISPR-Cas9 to deactivate latent varicella zoster virus.* A poster presented at the 2018 Student Impact and Innovation Showcase, Denver, Colorado.

\*\*Vieau, S., Maxwell, I. A., Moore, M., Stem, D., & Davis, K. N. (2017). *The effect of synchrony and mindfulness on prosocial attitudes.* Apaper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Salt Lake City, Utah.

Vieau, S., Noel, S. M., & Kusick, M. (2017). *The experience of synchrony leads to harmonization of velocity.* Apaper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Salt Lake City, Utah.

Vieau, S., Badanes, L. (2019). *Acceptance, Reappraisal, and Inhibition: Potential Buffers Against Heightened Cortisol Reactivity Associated with Early Life Stress.* A poster presented at the 31st Association for Psychological Science Annual Convention, Washington, D.C.

\*\*White, M., Pletcher, J., Vieau, S., Garofalo, A. M., Eccles, R. D., & Stem, D. (2018). *Does mindfulness moderate sexual assault and PTSD symptoms?.* A paper symposium presented at the annual conference of the Rocky Mountain Psychological Association, Denver, Colorado.

List of ATS Keywords

1. SAS Programming 2. Data Management 3. Data Quality Assurance 4. Data Integrity 5. SQL 6. Python 7. Health Care/Research 8. HIPAA Compliance 9. Epidemiology 10. Research Protocols
2. Data Specialist 2. SAS Programmer 3. Data manipulation 4. Data quality 5. Data integrity 6. SAS tools 7. Python 8. R 9. SQL 10. Research protocols

Skills Showcase (Please see website):

* Planned and carried out data management activities including data cleaning/quality assurance, data documentation, and analytic data set creation
* Authored program in Python for automated data cleaning essential to research
* Utilized SQL to merge and create robust datasets
* Performed rigorous statistical analyses and data manipulation in R and SAS, from raw datasets to comprehensive reports. Managed missing data, addressed assumptions and outliers, and performed model selection (linear mixed model, logitistic regression, MLR with confounding and interaction)