# Veronica M. White (she/her)

Google Scholar: <u>user=E-D8maUAAAAJ&hl=en</u> O Personal Website: <u>https://vmwhite.github.io/</u> vwhite@eng.famu.fsu.edu O (850) 410-6245 O https://eng.famu.fsu.edu/ime/people/white

#### **RESEARCH INTERESTS**

**Methodologies:** Queueing, simulation (discrete event), program evaluation (causal inference, statistical tests), optimization, implementation science.

**Application Areas of Interest:** public health and public safety (e.g., substance use, mental health, public policy, policing, healthcare access, criminal justice, homelessness)

**Statement**: My research interests involve modeling, developing, and evaluating interconnected systems that improve public health and safety outcomes via policies and programming. In the past, I used analytics, data science, and operations research approaches to the emerging intersection of policing and substance use disorder, where substance use disorder is a societal problem that impacts many disciplines/areas (e.g., social services, healthcare, criminal justice) and many populations (e.g., people with mental illness, people experiencing homelessness). In the future, I plan to continue to use these methodologies to provide insight into how to connect, implement, and improve public health programs to criminal justice issues.

## **EMPLOYMENT**

# Assistant Professor, Industrial and Manufacturing Engineering

Aug 2024 to Present

FAMU-FSU College of Engineering, Tallahassee, FL

#### **EDUCATION**

# Ph.D. – Industrial & Systems Engineering

Aug 2024

University of Wisconsin-Madison

Dissertation: Mathematical modeling to support mental health-focused policing and substance use disorder treatment

Committee: Dr. Laura A. Albert (Chair), Dr. Gabriel Zayas-Cabán, Dr. Yonatan Mintz, Dr. Joel Hunt, and Dr. Marguerite Burns

## MS – Industrial & Systems Engineering

Spring 2019

University of Wisconsin-Madison

# BS – Industrial & Manufacturing Systems Engineering

Magna cum Laude 2017

Iowa State University of Science & Technology

#### **GRANTS**

External	
INFORMS Ambassador Program, \$1,700	2023
INFORMS Ambassador Program, \$1,930	2022
National Institute of Justice Research Assistant Program, \$32,000	2021
National Institute of Justice Research Assistant Program, \$80,260	2020
<u>Internal</u>	
Crisis Prevention and Intervention Planning, \$19,808, 5/2025 to 8/2025	2025
Florida State University Council on Research + Creativity First Year Assistant Professor Program	
Student Research Grants Competition, \$600	2019
Conference Presentation Fund - University of Wisconsin-Madison	

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#### **PUBLICATIONS**

## **Journal Publications**

- White, V. M. & Albert, L. A. (2024). <u>Evaluating diversion and treatment policies for opioid use disorder</u>. IISE Transactions on Healthcare Systems Engineering. DOI: 10.1080/24725579.2025.2523273
- 2. Nyland, J. E., Zhang, A., Balles, J. A., Nguyen, T. H., **White, V. M.**, Albert, L. A., Henningfield, M. F., & Zgierska, A. E. (2024). <u>Law enforcement-led, pre-arrest diversion-to-treatment may reduce crime recidivism, incarceration, and overdose deaths: <u>Program evaluation outcomes</u>. Journal of Substance Use and Addiction Treatment, 165, 209458. https://doi.org/10.1016/j.josat.2024.209458.</u>
- 3. White, V. M., Hunt, J., & Green, B. (2024). A discussion of current crime forecasting indices and an improvement to the prediction efficiency index for applications. Security Journal, 37, 47–64. https://doi.org/10.1057/s41284-023-00367-4.
- 4. Zhang, A., Balles, J. A., Nyland, J. E., Nguyen, T. H., **White, V. M.**, & Zgierska, A. E. (2022). The relationship between police contacts for drug use-related crime and future arrests, incarceration, and overdoses: a retrospective observational study highlighting the need to break the vicious cycle. Harm Reduction Journal, 19, 67. DOI: 10.1186/s12954-022-00652-2
- White, V. M., Avendano, S. A., Albert, L. A., Zgierska, A.E., Balles J., & Zayas-Cabán G. (2021). The impact of a community-level initiative that promotes engagement in addiction treatment on recidivism. Drug and Alcohol Dependence, 227. DOI: 10.1016/j.drugalcdep.2021.108915
- 6. Zgierska, A. E., **White, V. M.,** Balles, J., Nelson, C., Freedman, J., Nguyen, T. H., & Johnson, S. C. (2021). <u>Pre-arrest diversion to addiction treatment by law enforcement: protocol for the community-level policing initiative to reduce addiction-related harm, including crime</u>. Health & Justice, 9(1), 1-9. DOI: 10.1186/s40352-021-00134-w
- Yoon, S., Albert, L. A., & White, V. M. (2021). <u>A stochastic programming approach for locating and dispatching two types of ambulances</u>. Transportation Science, 55(2), 275-296. DOI: 10.1287/trsc.2020.1023
- 8. White, V. M., Molfenter, T., Gustafson, D. H., Horst, J., Greller, R., Kim, J. S., ... & Toy, A. (2020). NIATx-TI versus typical product training on e-health technology implementation: a clustered randomized controlled trial study protocol. Implementation Science, 15(1), 1-12. DOI: 10.1186/s13012-020-01053-4
- Lee, S., Wei, S., White, V., Bain, P., Baker, C., & Li, J. (2020). <u>Classification of opioid usage through semi-supervised learning for total joint replacement patients</u>. IEEE Journal of biomedical and health informatics, 25(1), 189-200, Jan. 2021. DOI: 10.1109/JBHI.2020.2992973

#### **Conference Proceedings**

- 10. **White, V. M.** & Albert, L. A. (2024). <u>Alternative police response models to crisis calls</u>. In Proceedings of the *IISE Annual Conference & Expo*. May 18 21. Montreal, Canada.
- 11. **White, V. M.**, & Hunt, J. (2022). <u>Measuring how relatively "good" a hot-spot map is: A summary of current metrics</u>. In Proceedings of the *IISE Annual Conference & Expo*. May 20 24. Seattle, WA.
- 12. Mittal, A., White, V. M., & Krejci, C. (2017). A framework for collaboration among regional food system participants. In Proceedings of the Industrial & Systems Engineering Research Conference. May 20 23. Pittsburgh, PA.

## **Government Reports**

- 13. White, V. M., Rief, R., Hudgins, C. D., Pimsler, M., & Hunt, J. (2025). A Synthesis of the 2021 NIJ Forecasting Challenge Winning Reports. National Institute of Justice. NCJ: 309826.
- Johnson, T. L, Lopez, B. E., McGrath, J., Hudgins, C. D., Pimsler, M. L., and White, V. M. (2024). <u>Introducing the NIJ Forensic Intelligence Framework: Pillars and Guiding Principles for Successful Implementation</u>. *National Institute of Justice*. NCJ: 309128.
- 15. Hudgins, C. D., **White, V. M.**, Kane, R., & O'Brien, M (2024). <u>Sentinel Event Review for Successful Transition and Reentry Together (START) Program in the Eastern District of Wisconsin</u>. *National Institute of Justice*. NCJ: 307990.
- 16. National Institute of Justice. Nov. (2023). <u>Understanding Forensic Intelligence: The NIJ Framework</u>. NCJ: 307773. (co-author to the five pillars of Forensic Intelligence section).
- 17. **White, V. M.**, Applegarth, M., Hudgins, C., & Hunt, J. (2022). <u>The NIJ Recidivism Forecasting Challenge: Contextualizing the Results</u>. *National Institute of Justice*. NCJ: 304110.
- 18. Hudgins, C. D., **White, V. M.**, & Martin, E. Advancing Evidence-Based Practices in Criminal Justice with Implementation Science. *National Institute of Justice*. (In Peer Review).

# **Submitted and Working Papers**

- 19. **White, V. M.** & Albert, L. A. Evaluating police co-response models for crisis calls. (Working paper)
- 20. Rico, M. C., Albert L. A., & **White V. M.** On Locating Prescription Drug Collection Boxes. (Working paper)

# **Handbooks and Guides**

White, V.M., Haseltine, C., & Ogidigben, M. (2023). <u>INFORMS Student Chapter Student Chapter K-12 Outreach Guide</u>. INFORMS Outreach Strategic Initiative. INFORMS Ambassador Program.

#### **PRESENTATIONS**

\* Indicates Presenting Author(s)

#### **Panelist**

- 22. Job Search Panel. 2025 INFORMS Annual Meeting. Minority Issues Forum (MIF) Sponsored Session. Atlanta, GA.
- 23. Substance Use Disorders and Other Stigmatized Medical Needs. 2024 INFORMS Annual Meeting. Women in Operations Research and Management Science (WORMS) Sponsored Session. Seattle, WA.

# **Conference Presentations**

- 24. **White, V. M.\*** & Albert, L. A. Evaluating co-response models for crisis calls. 2024 INFORMS Annual Meeting. Oct. 20-23. Seattle, WA.
- 25. **White, V. M.\***, Applegarth, M., Hudgins, C., & Hunt, J. <u>The NIJ Recidivism Forecasting Challenge: Contextualizing the Results</u>. 2023 ASC Annual Meeting. Nov. 15-18<sup>th</sup>. Philadelphia, PA.
- 26. **White, V. M.\*** & Albert, L. A. Opioid Treatment Policies Using Discrete Event Simulation. 2023 INFORMS Annual Meeting. Oct. 15-18. Phoenix, AZ.
- 27. **White, V. M.\*,** Ogidigben, M.\*, & Haseltine, C. A.\*, Strategic Initiative: High School Outreach Flash Talk. 2023 INFORMS Annual Meeting. Oct. 15-18. Phoenix, AZ.
- 28. **White, V. M.\*** & Albert, L. Diversion and Treatment Policies for Opioid Use Disorder: A Discrete Event Simulation Approach. 2022 INFORMS Annual Meeting. Oct. 16-19. Indianapolis, IN.
- 29. **White, V. M.\***, Ogidigben, M.\*, Haseltine, C. A.\*, & Scaria, E., Strategic Initiative: High School Outreach Flash Talk. 2022 INFORMS Annual Meeting. Oct. 16-19. Indianapolis, IN.
- 30. **White, V. M.\*** & Albert, L. Analyzing Police Response Models with Multiple Types of Vehicles. 2022 International Association of Crime Analysts. August 22–26. Chicago, IL.
- 31. **White, V. M.\*** & Hunt, J. Measuring how relatively "good" a hot-spot map is: A summary of current metrics. 2022 IISE Annual Conference & Expo. May 20–24. Seattle, WA.
- 32. **White, V. M.\*** & Albert, L. Discrete Event Simulation for Modeling Addiction Treatment Public Policy Changes in Dane County, Wisconsin. 2021 INFORMS Annual Meeting. Oct. 24-27. Virtual.
- 33. **White, V. M.\***, Zayas-Cabán, G., Alverez, S. A., & Albert, L. The Impact of a Community-level Initiative That Promotes Engagement In Addiction Treatment On Crime Reduction. *2020 INFORMS Annual Meeting*. Nov. 8-13. Virtual.
- 34. Mittal, A.\*, **White, V. M.\*,** & Krejci, C. C. (2017). A Framework for Collaboration among Regional Food System Participants. At the *Industrial & Systems Engineering Research Conference*. May 20 23. Pittsburgh, PA.
- 35. Mittal, A.\*, **White, V. M.\*,** Craven, T.\*, Grimm, J., & Krejci, C. C. (2016). Regional Food Hub Coordination Inventory Management System. At the *2016 Annual Iowa Organic Conference*. Nov. 13 14. Iowa City, IA.

## **Project-Related Stakeholder Presentations**

- 36. "Operations Research Meets Criminal Justice." May 2021. *Let's RAP! Series*. National Institute of Justice, Washington, D.C. (Virtual).
- 37. "Amazon Devices Fulfillment Center Allocation Solver." Aug. 2020. *Internship Project Report Out.* Amazon Inc. Seattle, WA. (Virtual).
- 38. "Preliminary MARI Outcomes Analysis." Feb. 2020 & Jun. 2019 at the *MARI Operations Team Monthly Meeting*. Madison, WI.
- 39. "Counselor Training for RISE-Iowa Mobile Substance Use Disorder (SUD) Treatment Application." Fall 2019-Spring 2020 as a part of an implementation RCT. Multiple SUD clinic locations across Iowa.
- 40. "Predicting Opioid Prescription Level Post TJR Surgery." (2018). At the *Opioid Task Force Meeting*. Jan. 11. Madison, WI.

41. "Iowa Food Hub Collaboration Network" with Mittal A. (2017). At the *Iowa & Michigan Food Hub Managers Working Group Meeting*. May 9 - 10. West Union, IA.

# **Poster Presentations**

- 42. **White, V. M.\***, Meredith, M.\*, & Albert, L. Evaluation of a Two-Year Policing Initiative. *2019 INFORMS Annual Meeting*. Oct. 20 23. Seattle, Washington.
- 43. Nguyen, T.\*, Zgierska, A., & **White, V.** (2019) Madison Addiction Recovery Initiative. *NAPCRG 2019 Practice-based Research Network Conference*. Jun. 24-26. Bethesda, Maryland.
  - ❖ Award: Runner-up Best Poster
- 44. White, V. M.\*, Mittal, A., & Krejci, C. C. (2017). <u>Inventory Tracking for Iowa's Regional Food Network</u>. Poster presented at the *Industrial Advisory Board Meeting*. Apr. 20. Industrial & Manufacturing Systems Engineering, Iowa State University, Ames, IA.

# **TEACHING EXPERIENCE** – UG: Undergraduate students, GD: Graduate students

**Instructor:** At FAMU-FSU College of Engineering, I was the main instructor for these courses.

- ESI 4234 Quality Control and Reliability Engineering ~ UG, 29 students
  - o Fall 2025
- ESI 4523 Simulation of Industrial Engineering Systems ~UG, 27 students
  - o Spring 2026, Spring 2025
- **Teaching Assistant:** At the University of Wisconsin-Madison, I held twice-weekly office hours and provided regular feedback to students. Courses ranged from 40 students to over 100 students. For the 300 level courses I prepared and facilitated 2-3 weekly discussion sections to summarize and practice course material with 25-35 students each.
  - ISY E 320 Discrete Event Simulation Modeling ~ 35 UG

Spring 2024

- I SY E 323 Operations Research: Deterministic Modeling ~ 60 UG Spring/Fall 2018
- I SY E 524 Introduction to Optimization ~ 30 GD

Summer 2018

■ ISY E 313 – Engineering Economic Analysis ~ 30-60 UG

Fall 2017, Summer 2018

## **Guest Lecturing:** At the University of Wisconsin-Madison.

- I SY E 524 Introduction to Optimization 75 min ~ 60 GD
  - o June 17th & 19th, 2019 Course Introduction & Review of Linear Algebra
- I SY E 323 Operations Research: Deterministic Modeling 75 min ~ 65 UG
  - o Nov. 6, 2018 Integer Programming
  - o Apr. 26, 2018 the Branch and Bound Algorithm

<u>Tutor:</u> At Iowa State University, I worked with five groups of 3-6 UG. Each group met biweekly and worked through example problems and student questions.

- Statistics 231 Introduction to Statistical Concepts & Methods
  Fall 2016, Spring 2017
- Physics 222 Introduction to Classical Physics 2

Fall 2016, Spring 2017

- Supplemental Instruction Leader: At Iowa State University, I facilitated 3-4 open weekly sessions of 2-20 students. Conducted open exam reviews of 30-100+ UG. Created practice material available at sessions and online. Participated in workshops that taught communication and facilitation techniques.
  - Engineering 160 Engineering Problems

■ Economics 101 – Principals of Microeconomics

Fall 2014

#### RESEARCH MENTORING

<u>Graduate Students</u> – \*\*: Chair of Ph.D. Committee, \*: Ph.D. Committee Member.

- Khiran Kumar\*\*, Ph.D. Student, FAMU IME, Fall 2025 to present
- Alexis Andaverde\*\*, Ph.D. Student, FAMU IME, Fall 2024 to present
- Monica Rico, Ph.D. Student, UW–Madison ISYE, Fall 2023 to present

<u>Undergraduate Students</u> – URA: Undergraduate Research Assistant, UROP: Undergraduate Research Opportunity, REU: Research Experience for Undergraduates

Project: "Aiding Decision-Making for Behavioral and Mental Health Crisis Response."

- Amaiya Brown, REU, May 2025 to Aug. 2025, Winter Simulation Paper of Project.
- Alexander Osbourne, URA, May 2025 to Present, Dataset Documentation and Creation.
- Julia Krostich, UROP and URA, Sept. 2024 to Aug. 2025, R-Shiny Interactive Tool.
- Toni Levisman, UROP and URA, Sept. 2024 to Aug. 2025, R-Shiny Interactive Tool.
- Maia Gleizer, UROP, Sept. 2024 to May. 2025, Flowcharts in R.
- Caleb Valenzuela, UROP, Sept. 2024 to May. 2025, Honolulu, HI Case Study.
- Sarah Keith, UROP, Sept. 2024 to Feb. 2025, Radar Charts in R-Studio.

Project: "Time-Series Modeling of Opioid-Related Hospital Encounters"

- Colleen Wall, UW–Madison ISYE, Summer Fall 2021
  - ❖ Awarded 3<sup>rd</sup> in OR/MS Tomorrow 2021 Mini-Poster Competition
- Meghan Meredith, UW–Madison ISYE, Spring 2018 Spring 2019
  - "Literature Review and Statistical Analyses of a Community Policing Initiative"
- Praan Pisitthakarn, UW–Madison ISYE & CHESS, Spring 2019
  "VBA Graphs for an Addiction Mobile Treatment Implementation RCT"

## **High School Students**

Project: "Aiding Decision-Making for Behavioral and Mental Health Crisis Response."

- SV, 2025 FSU Young Scholars Program, Gadsden County Fl Case Study.
- AW, 2025 FSU Young Scholars Program, Gadsden County Fl Case Study.

# PROFESSIONAL DEVELOPMENT

# **Colloquia, Seminars, and Workshops:**

- IISE Program Future Faculty Fellows (3F), Nov. 2021 to May 2022
- INFORMS 2021 Doctoral Student Colloquium, Oct 23, 2021

## **Courses and Trainings:**

- Delta Program Book club Black Brown Bruised by Ebony McGee, Spring 2021
- Delta Program Research Mentor Training, Summer 2019
- CIRTL Network course Diversity in the College Classroom, Spring 2019

#### **SERVICE**

INFORMS Annual Meeting 2023 - Pheonix, AZ

**Committee Member** of Graduate Student Advisory Committee (GSAC) Nov. 2020 to Jul. 2024 College of Engineering – University of Wisconsin Madison

**Ad Hoc Reviewer** 

Aug. 2020 to Aug. 2023

Implementation Science

Cluster Member of Student and Alumni Affairs (SAA) Cluster

Dec. 2020 to Dec. 2022

 $Industrial\ and\ Systems\ Engineering\ Department-University\ of\ Wisconsin-Madison$ 

**Session Co-Chair** with Adam Schmidt, "Simulation Applications for Public Policy" Oct. 2021 *INFORMS Annual Meeting 2021* 

**Grant Reviewer** for Chapter Development Fund

Jun. 2021 to Aug. 2021

National Science Policy Network (NSPN)

**Vice President** 

May 2019 to Apr. 2020

INFORMS Student Chapter—University of Wisconsin Madison

Scribe – Wisconsin Institute for Healthcare Systems Engineering Conference

May 2018

Pi Mile Run Co-Coordinator

Oct. 2018 to Apr. 2019

Tau Beta Pi Engineering Honors Society – University of Wisconsin-Madison

Managed, fundraised, and secured permits and venue for local 5k/10k that hosted 100 runners and raised over \$2,000 for Occupaws Guide Dog Association

**Vice President** 

Jan. 2016 to May 2017

Tau Beta Pi Engineering Honors Society – Iowa State University

- Led committee to compete in SourceAmerica's 2016-2017 Design Challenge
- Oversaw projects team, which organizes several community-wide events each semester
- Collaborated with the Advisory board to provide direction and new ideas for the chapter

## **Vice President of Membership Development**

Jan. 2015 to Dec. 2015

Iowa Gamma Chapter of Pi Beta Phi – Iowa State University

- Developed and implemented a new Academic Program for the 170-member chapter
- Organized events such as Faculty Appreciation Night, values-based workshops, etc.

#### MEDIA AND PRESS

# **Social Media**

- Personal Blog: https://vmwhite.github.io/blog.html
- Twitter Handle: @VeronicaMWhite
- Awarded Best Tweet of ACM EAAMO 2021 Conference

#### **News Articles**

- Increasing Underrepresented Students' Exposure to OR/MS through K-12 Outreach OR/MS article
- What's Your StORy? Veronica White OR/MS Today Series
- Results from the National Institute of Justice recidivism forecasting challenge –
  Corrections Today March/April 2022, pages 12-16
- MARI reduces six-month recidivism odds –The Capital Times News Madison, WI

#### **Other Press and News**

- Why Operations Research? Reflecting on Our Journeys to Becoming Ph.D. students in Operations Research – INFORMS Blog Post
- Graduate students work to bolster diversity in operations research by *Thomas Ziemer*

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- New study reveals efficacy of Madison's addiction recovery initiative Radio Interview with WORT 89.9 FM's Jonah Chester
- Study shows effectiveness of substance-use diversion program by Thomas Ziemer
- The food hub managers working group by Savanna Lyons
- Local foods program supports food hubs across Iowa by Teresa Wiemerslage

## HONORS AND AWARDS

INFORMS Ambassador	dSpring 2022 & Spring 2023
DAS/SDP Decision Analysis Practice Award, Finalist	Fall 2022
IISE Future Faculty Fellows (3F) Program	Spring 2022
National Institute of Justice Research Assistant Program Fellowship	Fall 2020 & Fall 2021
Rea & Gustafson Fellowship	Fall 2019
Chancellor's Opportunity Award	Fall 2017
REOMAC Foundation Scholarship	Fall 2015
Wallace Scholar	Fall 2014
Tau Beta Pi – Iowa Alpha Scholar	Fall 2014
Award for Competitive Excellence	Fall 2013
Dean's List Iowa State University	Fall 2013 – Spring 2017
Top 2% of Graduating Class	Fall 2013

#### **INDUSTRY EXPERIENCE**

## **DIAL OR Scientist Intern, see [37]**

Summer 2020

Amazon - Virtual - Seattle, WA

- Created a new solver that separated the final optimization model from the primary Amazon Devices Solver, allowing it to be solved separately and repeatedly
- Improved several constraints of the separated model
- Communicated the new solver's purpose and its logic to various stakeholders such as my team, demand planning team, and contractors in the supply chain for the primary model.
- Researched methods to improve optimization solver times
- Documented solver's inner workings for the technical team & larger Amazon audience

# **Corporate Quality Engineering Intern**

Summer 2016 & Summer 2017

Shure Incorporated – Niles, IL

- Utilized Minitab to analyze a destructive gauge R&R, Salt-fog study using ANOVA, etc.
- Used hypothesis & accelerated-life testing to evaluate new product reliability
- Implemented a new overseas data collection system
- Created 7 test plans for product approval and conducted analyses on results

## **Safety and Ergonomic Intern**

January 2015 to August 2015

Lennox Industries Inc. - Marshalltown, IA

- Led the Joint Ergonomics Committee in completing over 23 projects
- Aided in 3 Rapid Continuous Improvement projects that lead to ergonomic improvements
- Completed 85 Washington Ergonomic Assessments for various work cells

## **ORGANIZATIONS AND INTERESTS**

INFORMS: Women in OR/MS (WORMS) Forum, Minority Issues Forum (MIF), Optimization Society, Decision Analysis Society (DAS), Analytics Society, Simulation Society, Public

Sector OR Section, Service Science Section, Multiple Criteria Decision-Making Section, Junior Faculty Interest Group Institute of Industrial and Systems Engineers (IISE) Tau Beta Pi (TBP) – Engineering Honors Society NSPN – National Science Policy Network