

Gregory J. Hunt

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(updated: September 12, 2025)

Positions

- 2025 – Associate Professor of Statistics, Dept. of Mathematics, William & Mary
- 2021 – 2025 CAMS Applied Statistics Track Director, William & Mary
- 2019 – 2025 Assistant Professor of Statistics, Dept. of Mathematics, William & Mary

Education

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|------|-----|-------------------------------|------------------------|
| 2018 | PhD | Statistics | University of Michigan |
| 2015 | MA | Statistics | University of Michigan |
| 2013 | BA | Mathematics, Computer Science | Drew University |

Publications

* = equal authorship contributions

† = award winning

Peer-reviewed.

1. Ninh, A. **Hunt, G. J.**, Nguyen, D. (2025). Estimation of Patient Recruitment Using Summary Data Aggregated Across Trials. To appear in the INFORMS Journal on Computing. <https://doi.org/10.1287/ijoc.2024.0780>
2. **Hunt, G. J.**, Hunt, R. L., & Marley, C. (2023). Review of Surrogate Strategies and Regularization with Application to High-Speed Flows. In The ITEA Journal of Test and Evaluation (Vol. 44, Issue 3). International Test and Evaluation Association. <https://doi.org/10.61278/itea.44.3.1008>
3. Ground, C. R., Hunt, R. L., & **Hunt, G. J.** (2023). Quantitative gas property measurements by filtered Rayleigh scattering: a review. In Measurement Science and Technology (Vol. 34, Issue 9, p. 092001). IOP Publishing. <https://doi.org/10.1088/1361-6501/acd40b>
4. **Hunt, G. J.**, & Gagnon-Bartsch, J. A. (2023). A Review of Containerization for Interactive and Reproducible Analysis. In Journal of Data Science, Statistics, and Visualisation (Vol. 3, Issue 1). International Association for Statistical Computing. <https://doi.org/10.52933/jdssv.v3i1.53>
5. **Hunt, G. J.**, Dane, M. A., Korkola, J. E., Heiser, L. M., & Gagnon-Bartsch, J. A. (2022). Systematic replication enables normalization of high-throughput imaging assays. In Bioinformatics (Vol. 38, Issue 21, pp. 4934–4940). Oxford University Press (OUP). <https://doi.org/10.1093/bioinformatics/btac606>
6. **Hunt, G. J.**, Ground, C. R., & Cutler, A. D. (2022). Adaptive modeling powers fast multiparameter fitting of CARS spectra. In Journal of Raman Spectroscopy (Vol. 53, Issue 5, pp. 934–946). Wiley. <https://doi.org/10.1002/jrs.6316>
7. **Hunt, G. J.***, & Hunt, R. L.* (2021). Locating the Isolator Shock-Train Leading Edge with Limited Pressure Information. In Journal of Propulsion and Power (Vol. 37, Issue 6, pp. 876–892). American Institute of Aeronautics and Astronautics (AIAA). <https://doi.org/10.2514/1.b38334>
8. **Hunt, G. J.**, & Gagnon-Bartsch, J. A. (2021). The role of scale in the estimation of cell-type proportions. In The Annals of Applied Statistics (Vol. 15, Issue 1, pp. 270–286). Institute of Mathematical Statistics. <https://doi.org/10.1214/20-aos1395>

9. †**Hunt, G. J.**, Ground, C. R., & Hunt, R. L. (2020). Fast approximations of spectral lineshapes to enable optimization of a filtered Rayleigh scattering experiment. In *Measurement Science and Technology* (Vol. 31, Issue 9, p. 095203). IOP Publishing. <https://doi.org/10.1088/1361-6501/ab8a7e>
10. **Hunt, G. J.**, Dane, M. A., Korkola, J. E., Heiser, L. M., & Gagnon-Bartsch, J. A. (2020). Automatic Transformation and Integration to Improve Visualization and Discovery of Latent Effects in Imaging Data. In *Journal of Computational and Graphical Statistics* (Vol. 29, Issue 4, pp. 929–941). American Statistical Association. <https://doi.org/10.1080/10618600.2020.1741379>
11. **Hunt, G. J.**, Freytag, S., Bahlo, M., & Gagnon-Bartsch, J. A. (2018). dtangle: accurate and robust cell type deconvolution. In *Bioinformatics* (Vol. 35, Issue 12, pp. 2093–2099). Oxford University Press (OUP). <https://doi.org/10.1093/bioinformatics/bty926>

Non-peer-reviewed.

11. †**Hunt, R. L.**, & **Hunt, G. J.** (2020). Adaptive Pressure Profile Method to Locate the Isolator Shock Train Leading Edge Given Limited Pressure Information. In *AIAA Propulsion and Energy 2020 Forum*. AIAA Propulsion and Energy 2020 Forum. American Institute of Aeronautics and Astronautics. <https://doi.org/10.2514/6.2020-3715>
 †Best Paper Award High Speed Air Breathing Propulsion Category in AIAA 2021 Propulsion and Energy Forum.

Talks, Short Courses, and Workshops

Short courses taught.

1. “Everyday Reproducibility: Simple Flexible Tools for Making Analyses more Accessible and Reproducible.” ASA Middle Tennessee Chapter. Sep 2025.
2. Everyday Reproducibility: Simple Flexible Tools for Making Analyses more Accessible and Reproducible. *ICSA*. Jun 2024.
3. Everyday Reproducibility: Simple Flexible Tools for Making Analyses more Accessible and Reproducible. *CSP*. Feb 2024.
4. Everyday Reproducibility: Simple Flexible Tools for Making Analyses more Accessible and Reproducible. *JSM*. Aug 2023.

Workshops taught.

1. Data and AI Intensive Research with Rigor and Reproducibility (DAIR3). Sections on computational reproducibility. Ann Arbor, MI. Aug 2025.
2. Data and AI Intensive Research with Rigor and Reproducibility (DAIR3). Sections on computational reproducibility. San Antonio, TX. Jun 2025.
3. Data and AI Intensive Research with Rigor and Reproducibility (DAIR3). Sections on computational reproducibility. Jackson, MS. Jul 2024.

Talks given.

1. Leveraging design to remove spatial artifacts in high-throughput imaging assays. *Drew University*. Nov 2023.
2. Leveraging design to remove spatial artifacts in high-throughput imaging assays. *Statistical Methods in Imaging Conference*. May 2023.
3. An Analysis of Surrogate Strategies and Regularization with Application to High-Speed Flows. *Dataworks*. Apr 2023.
4. Modeling Strategies and Regularization: A Comparison. *Algorithms & Machine Learning group at Walgreens Boots Alliance*. Feb 2023.
5. Containerization for Interactive and Reproducible Analysis. *JSM*. Aug 2022.
6. Everyday reproducibility. *Dataworks*. Apr 2022.
7. Transformations and Cell-type Deconvolution. *ENAR*. Mar 2022.

8. Robust Re-scaling of Imaging Data to Improve Discovery of Latent Effects. *JSM*. Aug 2021.
9. An Adaptive Method for Shock Tracking. *Dataworks*. Mar 2021.
10. Finding and Removing Unwanted Spatial Effects in Microenvironment Microarray Data. *ENAR*. Mar 2021.
11. Transformation and Integration of Microenvironment Microarray Data. *ICSA*. May 2020.
12. The Role of Scale in the Estimation of Cell-type Proportions. *IBC*. Jul 2020.
13. Leveraging Statistical Learning to Make Fast Approximations of Spectral Lineshapes. *FPCB Machine Learning and Technology Group, NASA Langley*. Apr 2020.
14. Estimation of Cell-type Proportions in Complex Tissue. *ENAR*. Mar 2020.
15. Estimating Cell Types in Complex Brain Tissue. *Joint Statistical Meetings*. Aug 2019.
16. Robust Transformation of MEMA data. *WNAR*. Jun 2019.
17. Deconvolution and Transformation. *Biomathematics Group*. Nov 2018.
18. dtangle: accurate and fast cell type deconvolution. *William & Mary Department of Mathematics*. Dec 2017.
19. dtangle: a simple and fast cell type deconvolution estimator. *Joint Statistical Meetings*. Aug 2017.
20. dtangle: a simple and fast cell type deconvolution estimator. *Michigan Student Symposium for Interdisciplinary Statistical Sciences*. Mar 2017.

Internal talks. (* = student talk)

21. *Merging cross-platform gene expression data (presenter: Jiayi Xu). *Biomathematics Group*. Apr 2022.
22. Everyday Reproducibility. *Biomathematics Group*. Mar 2021.
23. Removing Unwanted Spatial Effects from MEMA data. *Biomathematics Group*. Oct 2020.
24. Adapting Sparse Measurements for Control of Hypersonic Vehicles. *Applied Mathematics Seminar*. Sep 2020.
25. Estimation of Cell-type Proportions in Complex Tissue. *Biomathematics Group*. Oct 2019.
26. Support Vector Spectrum Approximations. *Applied Mathematics Seminar*. Sep 2019.

Funding

External funding.

1. *National Institutes of Health*: Innovative Programs to Enhance Research Training (R25) "Training Biomedical Research Teams for Rigor and Reproducibility in Data Science" 2023-2028. **Role: Senior Personnel** (Overall PI: Jing Liu, U. Mich., Juan Gutierrez, UTSA) Amount: **\$2,228,054 (subcontract to William & Mary \$30,342)**.
2. *Department of Defense/Air Force Office of Scientific Research*: "HyperStats: Statistical Training for Interdisciplinary Hypersonics" 2023 - 2024. **Role: PI. Amount: \$58,445.**
3. *Virginia Space Grant Consortium*: Innovative Proposals in Education. "Summer Collaborative Bridge: Connecting Student Summer Research Experiences Across Academics and Industry." 2023. **Role: PI (with Rex Kincaid). Amount: \$8,000.**
4. *Department of Defense/Air Force Office of Scientific Research*: "HyperStats: Statistical Training for Interdisciplinary Hypersonics" 2022 - 2023. **Role: PI. Amount: \$49,958.00.**
5. *Virginia Space Grant Consortium*: Innovative Proposals in Education. "Summer Collaborative Bridge: Connecting Student Summer Research Experiences Across Academics and Industry." 2022. **Role: PI (with Rex Kincaid). Amount: \$16,000 (\$8,000 internal matching).**
6. *Virginia Space Grant Consortium*: Innovative Proposals in Education. "Summer Collaborative Bridge: Connecting Student Summer Research Experiences Across Academics and Industry." 2021. **Role: PI (with Rex Kincaid). Amount: \$7,000.**

7. *Virginia Space Grant Consortium: Innovative Proposals in Education* . “Summer Collaborative Bridge: Connecting Student Summer Research Experiences Across Academics and Industry.” 2020. Role: **PI (with Rex Kincaid)**. Amount: **\$6,558**.
8. *Virginia Space Grant Consortium: New Investigator Program*. “Using Machine Learning to Efficiently Model Filtered Rayleigh Scattering.” 2019 - 2020. Role: **PI**. Amount: **\$20,000 (\$10,000 internal matching)**.

Internal funding.

9. William & Mary: Faculty Research Grant. “Interpretable Feature Engineering for Bioimaging Data.” 2023 - 2024. Role: **PI**. Amount: **\$5,000**.
10. William & Mary: Pre-Tenure Summer Grant. “Finding and Removing Unwanted Spatial Effects in Breast Cancer Experiments.” 2021. Role: **PI**. Amount: **\$4,000**.

Awards

Awards.

1. Simon Prize for Excellence in the Teaching of Mathematics. William & Mary, Department of Mathematics, 2022.
2. Best Paper Award for “Adaptive Pressure Profile Method to Locate the Isolator Shock Train Leading Edge Given Limited Pressure Information”. American Institute of Aeronautics and Astronautics (AIAA) High Speed Air Breathing Propulsion Category in AIAA 2021 Propulsion and Energy Forum. August 2021.
3. Outstanding Paper Award for 2020 in the field of Optical and laser-based techniques for “Fast approximations of spectral lineshapes to enable optimization of a filtered Rayleigh scattering experiment”. Given by Measurement Science and Technology. 2021. <https://doi.org/10.1088/1361-6501/abfc84>
4. Outstanding Graduate Student Instructor. University of Michigan, Department of Statistics. 2016.

Software

Non-peer-reviewed software.

1. wgt: Wasserstein Geodesic Transformations.
<https://gjhunt.github.io/wgt/>
2. pgc: Poisson-Gamma combine, using public clinical trials to estimate the Poisson-Gamma model.
<https://gjhunt.github.io/pgc/>
3. rrscale: Robust re-scaling to improve recovering of latent effects.
<https://cran.r-project.org/package=rrscale>
<https://gjhunt.github.io/rr/>
4. memanorm: Normalization of Microenvironment Microarray Data using design-based approach.
https://gjhunt.github.io/mema_norm/
5. hspe: Hybrid-Scale Proportion Estimation.
<https://gjhunt.github.io/hspe>
6. kars: Kernel Approximation of Raman Spectra.
<https://gjhunt.github.io/kars>
<https://pypi.org/project/kars/>
7. app: Adaptive Pressure Profile shock train tracking.
<https://gjhunt.github.io/app>
<https://pypi.org/project/app-stle/>
8. svsa: Quick and accurate approximations of any spectral lineshapes model.
<https://gjhunt.github.io/svsa>
<https://pypi.org/project/svsa/>

9. `dtangle`: Cell type deconvolution for high-throughput gene profiling technologies.
<https://cran.r-project.org/package=dtangle>
<https://gjhunt.github.io/dtangle>

Teaching

Courses taught at William & Mary.

Semester	Course	Name	Overall Teaching Effectiveness (out of 5)
Spring 25	MATH 451/551 (x2)	Probability	4.62, 4.7
Fall 24	MATH 452/552	Mathematical Statistics	4.83
Fall 24	MATH 455/555	Statistical Learning	4.08
Fall 24	MATH 300	Mathematical Sciences Writing	
Spring 24	MATH 451/551 (x2)	Probability	4.67, 4.67
Spring 24	MATH 300	Mathematical Sciences Writing	
Fall 23	MATH 455/555	Statistical Learning	5.00
Fall 23	MATH 452/552	Mathematical Statistics	4.75
Spring 23	–	Pre-tenure Research Leave	
Fall 22	MATH 455/555	Statistical Learning	4.75
Fall 22	MATH 452/552	Mathematical Statistics	4.85
Fall 22	MATH 300	Mathematical Sciences Writing	
Spring 22	MATH 451/551 (x2)	Probability	4.60, 5.00
Spring 22	MATH 452/552	Mathematical Statistics	4.57
Spring 22	MATH 300	Mathematical Sciences Writing	
Fall 21	MATH 451/551 (x2)	Probability	4.50, 5.00
Fall 21	MATH 300	Mathematical Sciences Writing	
Spring 21	MATH 452/552	Mathematical Statistics	4.26
Spring 21	CSCI 688	Data Mining	4.5
Spring 21	MATH 300	Mathematical Sciences Writing	
Fall 20	MATH 300	Mathematical Sciences Writing	
Fall 20	MATH 451/551 (x2)	Probability	4.09, 4.29
Spring 20	CSCI 708	Research Project in COR	
Spring 20	MATH 451/551 (x2)	Probability	4.19, 4.00
Fall 19	CSCI 690	Readings in Computer Science	
Fall 19	MATH 459	Data Mining	4.77
Fall 19	MATH 452/552	Mathematical Statistics	4.33
Spring 19	CSCI 688	Data Mining	4.40
Spring 19	MATH 451/551	Probability	4.22

Courses taught as teaching assistant at the University of Michigan.

Summer 17		Big Data Summer Institute
Winter 17	STATS 415 (x2)	Data Mining and Statistical Learning
Fall 16	STATS 408 (x2)	Statistical Principles for Problem Solving: A Systems Approach.
Winter 16	STATS 408 (x2)	Statistical Principles for Problem Solving: A Systems Approach.
Fall 15	STATS 403 (x2)	Introduction to Quantitative Research Methods
Winter 15	STATS 485 (x2)	Capstone Seminar

Fall 14	STATS 250 (x2)	Introduction to Statistics and Data Analysis
Summer 14	STATS 250	Introduction to Statistics and Data Analysis
Winter 14	STATS 250 (x2)	Introduction to Statistics and Data Analysis
Fall 13	STATS 250 (x2)	Introduction to Statistics and Data Analysis

Research Mentoring

Research students mentored at William & Mary.

** = External Funded Research

* = Internal Funded Research

★ = Honors Thesis

Name	Funding Source	Dates	Notes
<i>Masters</i>			
Diep Nguyen		09/2022 – 05/2023	co-mentored with Prof. Ninh
**Cassandra Chang	VSGC	04/2019 – 05/2020	

Undergraduate

*Emma Williams	Charles Center	01/2025 – 08/2025	
**Ethan Gaul	DoD	05/2024 – 08/2024	student from JMU
**Nelson Laine	DoD	05/2024 – 08/2024	student from VT
**John Introne	DoD	10/2023 –	
Grace Hilton		09/2023 – 12/2023	
**Andrew Lee	VSGC, IIC	05/2023 – 05/2025	
**Ben Kim	DoD	05/2023 – 08/2023	student from UVA
**Nicholas Reeder	DoD	05/2023 – 08/2023	
**Lydia Pelham	DoD	05/2023 – 08/2023	student from JMU
*★John Pendergrass	Monroe Scholar	02/2022 – 05/2025	
★Jiayi Xu		01/2022 – 05/2023	
Ben Sharrer		09/2021 – 01/2022	
**★Owen Guch	VSGC	04/2021 – 05/2023	
**Brian Lorn	VSGC	03/2021 – 08/2021	
*Ray Shen	Charles Center	02/2021 – 08/2021	
**★Isabel Agostino	VSGC	04/2020 – 05/2022	
*★Alison Reynolds	Charles Center	01/2020 – 05/2021	
*★Grace Smith	Charles Center	01/2020 – 05/2022	
Alan Song		11/2019 – 5/2020	
Bin Yang		09/2019 – 12/2019	
Chris Elsner		01/2019 – 04/2019	

Highschool

**Anne Guerrant	DoD	05/2024 – 08/2024	
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**Katie Boland	DoD	05/2024 – 08/2024
**Madeline Sablan	DoD	05/2024 – 08/2024
**Josephine Chang	DoD	05/2023 – 08/2023
**Evan Grabarczyk	DoD	05/2023 – 08/2023
**Aden Alexander	DoD	05/2023 – 08/2023

Honors Thesis Committees while at William & Mary.

John Pendergrass	Chair	Undergraduate Honors Defense	Spring 2025
Nick Zehnle	Member	Undergraduate Honors Defense	Spring 2024
Min Guo	Member	Undergraduate Honors Defense	Spring 2023
Jiayi Xu	Chair	Undergraduate Honors Defense	Spring 2023
Owen Guch	Chair	Undergraduate Honors Defense	Spring 2023
Zhurong Mao	Member	Undergraduate Honors Defense	Fall 2022
Ethan Hackett	Member	Undergraduate Honors Defense	Fall 2022
Grace Smith	Chair	Undergraduate Honors Defense	Spring 2022
Isabel Agostino	Chair	Undergraduate Honors Defense	Spring 2022
Alison Reynolds	Chair	Undergraduate Honors Defense	Spring 2021
Maliha Ahmad	Member	Undergraduate Honors Defense	Spring 2019

Service

Service

1. Applied Statistics Track Director for CAMS major (2021 – 2025)
2. Pre-major advisor for 28 students (Fall 2019 –)
3. Major advisor for 34 students (Spring 2019 –)
4. Undergraduate Research Committee (Spring 2024, Spring 2025)
5. Statistics TTE Hiring Committee (Fall 2022)
6. VIMS Hiring Consulting (Spring 2022)
7. Merit Evaluation Committee (2021-2022)
8. Data science hiring committee (Spring 2021)
9. Applied Mathematics Seminar Organizer (Fall 2019, Fall 2020)
10. Math NTE hiring committee (Spring 2019)
11. Data science steering committee (Spring 2019 - Spring 2021)

Conference organizing.

- “Everyday Reproducibility: Simple Flexible Tools for Making Analyses more Accessible and Reproducible.” Short Course Instructor. ICSA. Jun 2024.
- “Everyday Reproducibility: Simple Flexible Tools for Making Analyses more Accessible and Reproducible.” Short Course Instructor. CSP. Feb 2024.
- “Everyday Reproducibility: Simple Flexible Tools for Making Analyses more Accessible and Reproducible.” Short Course Instructor JSM. Aug 2023.
- “A Multi-disciplinary View of Reproducibility”, Co-Organizer. 2022. JSM

- “Imaging in High-throughput -omics”, Co-Organizer and Chair. 2019. WNAR.

Journal refereeing.

- Nucleic Acids Research
- ITEA Journal of Test and Evaluation
- Genome Biology
- Briefings in Bioinformatics
- Bioinformatics
- Inflammatory Bowel Diseases
- GigaScience
- PLOS Computational Biology
- Journal of Healthcare Engineering
- Computational and Structural Biotechnology Journal

Press

1. “MIDAS gets \$2.3M to develop national training program”
2. “It’s rocket science: A W&M summer of hypersonic research”
3. “Greg Hunt C’13 Uses Drew University Professors as the Standard in his Teaching Career”