

# Maximilian (Max) J. Gebauer

Philadelphia, Pennsylvania | [gebauerm@sas.upenn.edu](mailto:gebauerm@sas.upenn.edu) | [github.com/Max-Gebauer](https://github.com/Max-Gebauer)

## EDUCATION

|                                                                                                                                                                                                                       |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>University of Pennsylvania</b><br>Ph.D. Candidate, Philosophy<br>Areas of specialization: Philosophy of Science; Bayesianism. Areas of competence: Political Philosophy;<br>Environmental Philosophy.              | Aug. 2022 - expected<br>Spring 2027 |
| <b>The Wharton School, University of Pennsylvania</b><br>M.A., Statistics & Data Science<br>Thesis: <i>Sparse Control Selection For Spatial Epidemiological Data: Double Lasso And County COVID-19<br/>Mortality.</i> | May 2026                            |
| <b>Washington and Lee University</b><br>B.A., Philosophy & Poverty and Human Capability Studies, <i>magna cum laude</i> ; Honors in Philosophy                                                                        | May 2022                            |
| <b>University of Oxford, Mansfield College</b><br>Visiting Student Programme                                                                                                                                          | Fall 2020 - Summer<br>2021          |

## FORTHCOMING PUBLICATION

|                                                                                                                 |             |
|-----------------------------------------------------------------------------------------------------------------|-------------|
| <b>"Bayesian Practice and the Persistence of Inductive Risk"</b><br><i>Philosophy of Science</i> , forthcoming. | Forthcoming |
|-----------------------------------------------------------------------------------------------------------------|-------------|

## WORKING PAPERS

|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>"Opponent-Adjusted Evaluation of NFL Pass Blocking and Pass Rushing Performance"</b><br>Jonathan Pipping-Gamón, Maximilian J. Gebauer, Victoria Lee, Kenny Watts, and Abraham J. Wyner.<br>Interpretable ridge-regularized Bradley-Terry models for player-level pass-blocking and pass-rushing evaluation<br>using opponent-dependent tracking interactions.<br><a href="#">arXiv preprint</a>   <a href="#">Repository</a> | Revisions                    |
| <b>FAIR xwOBA</b><br>Maximilian J. Gebauer.<br>A player-trait-free model of expected weighted on-base average in Major League Baseball that outperformed the<br>declared Statcast comparators across six rolling held-out development seasons and supports new analysis of<br>the game value associated with Sprint Speed.<br><a href="#">Published article and results</a>   <a href="#">Repository</a>                        | Public release, Aug.<br>2026 |

## RESEARCH & PROFESSIONAL EXPERIENCE

|                                                                                                                                                                                            |                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Technical Lead, Wharton Analytics Fellows</b><br>Built reproducible data-processing and predictive-modeling workflows for confidential applied research.                                | Dec. 2025 - May 2026   |
| <b>Summer Lab Associate, Wharton Sports Analytics and Business Initiative</b><br>Developed dynamic sports-performance models, advised student research projects, and taught R programming. | Summer 2025            |
| <b>Graduate Mentor, Perry World House</b><br>Mentored an undergraduate research team on quantitative approaches in climate governance.                                                     | Sept. 2024 - Feb. 2025 |
| <b>Intern, Center for Ethics and the Rule of Law</b><br>Coauthored white papers combining quantitative and qualitative analysis of proposed FISA Section 702 reforms.                      | June - Aug. 2023       |
| <b>Intern, U.S. Federal District Court</b><br>Produced analytical research for legal-academic partnerships.                                                                                | May - Oct. 2020        |

TEACHING EXPERIENCE

|                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Instructor and Teaching Assistant, University of Pennsylvania</b><br>Instructor of record for Philosophy of Science and Introductory Statistics. Teaching-assistant portfolio: Philosophy of Science, Introduction to Logic, Bioethics, Saving the Planet: Tools for the Climate Emergency, Modern Data Mining, Applied Bayesian Modeling, Applied Regression Analysis for Health Policy Research, and Introduction to Statistics for Health Policy. | 2023 - present |
| <b>Teaching Fellow, Wharton Data Science Academy</b><br>Taught high school students in an intensive summer program; delivered lectures on neural networks and ensemble methods, advised student projects, and supported assignments.                                                                                                                                                                                                                    | Summer 2026    |
| <b>Teaching Assistant, Wharton Moneyball Academy</b><br>Advised high school student projects in sports statistics and provided coding and analytical support in the Philadelphia and San Francisco programs.                                                                                                                                                                                                                                            | Summer 2025    |

TALKS, PRESENTATIONS, AND INVITED LECTURES

|                                                                                                                                                       |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>"Approximating Posterior Distributions with Variational Bayes"</b><br>Applied Bayesian Modeling.                                                   | 2025 |
| <b>"A Dynamic Rating Scheme for NFL Pass Rushers"</b><br>New England Symposium for Statistics in Sports; Wharton Sport Analytics and Business Summit. | 2025 |
| <b>"Judgment and Decision-making under Uncertainty"</b><br>Repairing the Planet: Tools for the Climate Emergency.                                     | 2025 |
| <b>"Expected Utility Maximization and Environmental Decision-making"</b><br>Repairing the Planet: Tools for the Climate Emergency.                    | 2025 |

ACADEMIC LEADERSHIP

- Chair, "AI as Method" symposium, 29th Biennial Meeting of the Philosophy of Science Association, 2024.
- Chair, "Applied Ethics" colloquium, 119th Annual Meeting of the Eastern Division of the American Philosophical Association, 2023.
- Co-developed a new introductory logic course at the University of Pennsylvania, 2024.

SELECTED COURSEWORK & RESEARCH

|                                                                                                                                                                                                                                                                                          |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>Statistics &amp; Data Science</b><br>Applied Regression; Bayesian Modeling; Data Mining; Observational Studies; Probability; Statistical Computing; Forecasting & Time Series; Non-parametric Methods.                                                                                | Graduate coursework |
| <b>Philosophy</b><br>Philosophy of Science; Mathematical Logic; Logic; Political Philosophy; Metaethics; Contemporary Ethical Theory; Proseminar; Kant and the a priori; Modern Political Philosophy; Epistemology and Perception.                                                       | Graduate coursework |
| <b>Sparse Control Selection For Spatial Epidemiological Data</b><br>Applied post-double-selection LASSO with a negative-binomial regression model and Markov random field spatial controls to investigate the association between U.S. county-level partisanship and COVID-19 mortality. | M.A. thesis         |

AWARDS & FELLOWSHIPS

- Perry World House Graduate Fellow, 2025-26.
- Fishman Fellowship, University of Pennsylvania, 2022-present.
- Benjamin Franklin Fellowship, University of Pennsylvania, 2022-present.
- Fontaine Graduate Fellowship, University of Pennsylvania, 2022-present.
- Dissertation Research Award, University of Pennsylvania, 2025.
- Edward Dodd Award; Charles Thomas Boggs Prize; The Young Scholarship; William Wells Chaffin Memorial Scholarship, Washington and Lee University, 2022.
- The Grenader Family Prize, Mansfield College, University of Oxford, 2020.

METHODS & SOFTWARE

Proficient in R, Stan, and LaTeX; familiar with Python, Excel, and Stata. Methods include regression analysis, Bayesian modeling, nonparametric methods, stochastic simulation, and machine learning. Software includes RStudio, VS Code, Jupyter, GitHub, and Overleaf.