

Location: Salt Lake City

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Website: joshbrekel.com

Personal Summary

I am currently working towards a PhD under the supervision of Jonah Schupbach at the University of Utah. My research primarily focuses on formal epistemology, philosophy of science, and Bayesian probability theory. I often find myself researching the works of J.M. Keynes, C.S. Peirce, and I.J. Good, respectively. Prior to coming to Utah, I taught philosophy classes at Colorado State University and the University of Northern Colorado. I also worked as a programmer for the USDA-ARS, where I helped develop a Python package called *pyfao56*. My time at the USDA-ARS gave me insight into what it is like to be a research scientist, while teaching helped me discover my passion for helping others learn about philosophy. I am originally from Northeastern Colorado, and I am a proud first-generation college student.

Specializations	Epistemology Philosophy of Probability Python Programming
Competencies	Philosophy of Science Logic Normative Ethics
Interests	American Pragmatism History of Economics Pedagogy

Notable Awards and Honors

- 2024-5: Best Graduate Student Paper (Utah Philosophy Department)
- 2024: Mizzou Ridgel Doctoral Fellowship (declined admission offer)
- 2018: Ben W. Garcia CSU Economics Merit Scholarship

References

Dr. Jonah Schupbach	Utah
jonah.schupbach@utah.edu	
Dr. Jeff Kasser	CSU
jeff.kasser@colostate.edu	
Dr. Kendall DeJonge	USDA-ARS
kendall.dejonge@usda.gov	
Dr. Ken Shockley	CSU
kenneth.shockley@colostate.edu	

More references available upon request.

Education

University of Utah	
Ph.D. Philosophy	2024—Present
Colorado State University	
M.A. Philosophy	2020—2022
B.A. Economics	2016—2019
B.A. Philosophy	2016—2019

Employment

Graduate Teaching Assistant	Aug 2024—Present
University of Utah	Salt Lake City, UT

- SP25: Graded undergraduate short essays for Feminist Philosophy of Science, taught by Professor Melinda Fagan.

Philosophy Instructor	Jan 2023—May 2024
Colorado State University	Fort Collins, CO

- Taught five 40-student sections of Moral and Social Problems.
- Taught one 60-student section of Ethical Computing Systems.
- Advised graduate teaching assistants on assignment grading, assignment design, lecturing, and pedagogical strategies.

Philosophy Instructor	Aug 2023—May 2024
University of Northern Colorado	Greeley, CO

- Taught three 60-student sections of Moral Issues.
- Taught one 35-student section of Philosophy of Science.
- Designed and graded all class lectures, assignments, exams, and papers.

Data Scientist	May 2022—Jan. 2024
USDA Agricultural Research Service	Fort Collins, CO

- As a GS-06-01, spearheaded a project to transition experimental research data from Excel to Python.
- Contributed to the development of an open-source Python Package designed to codify FAO-56 water-balance equations.
- Used Git, Github, PyCharm, and Jupyter Notebook to efficiently develop scripts and modules in a team environment.

Graduate Teaching Assistant	Aug 2020—May 2022
Colorado State University	Fort Collins, CO

- Graded undergraduate papers and exams while adhering to outlined grading policies.
- Assisted with the development of paper prompts, exam questions, homework assignments, and rubrics.
- Helped with the development of remote, hybrid, and in-person classes.

Content Marketing Specialist	May 2019—Mar 2020
Madwire Inc.	Fort Collins, CO

- Wrote an average of 1,500 words per day for use on small business websites.
- Edited various small business websites (on multiple platforms) on a daily basis.
- Effectively managed a clientele book of over 50 clients.

Publications

DeJonge, K. C., Thorp, K. R., **Brekel, J.**, Pokoski, T., and Trout, T. J., “Customizing pyfao56 for evapotranspiration estimation and irrigation scheduling at the Limited Irrigation Research Farm (LIRF), Greeley, Colorado”. *Agricultural Water Management* 299 (2024): 108891.

Brekel, J., Thorp, K. R., DeJonge, K. C., and Trout, T. J., “Version 1.1.0—pyfao56: FAO-56 evapotranspiration in Python”. *SoftwareX* 22 (2023): 101336.

Thorp, K. R., **Brekel, J.**, and DeJonge, K. C., “Version 1.2.0 — pyfao56: FAO-56 evapotranspiration in Python”. *SoftwareX* 24 (2023): 101518.

Presentations

“**A Statistical Analysis of Philosophers on Philosophy**”
(with Aaron Nielsen and Jacob Shankles)
Philosophy Department Lunch Series, Colorado State University, Fort Collins, CO Jan 31, 2024

“**Saving Water in Arid Climates: How Environment and Plant Status Combine to Determine Crop Water Needs**”(with Kendall DeJonge)
Energy and Environment Seminar Series, Powerhouse Energy Campus, Fort Collins, CO Apr 20, 2023

“**Streamlining Scheduling: How Python Transforms Water Balance Modeling and Evapotranspiration Estimation**”
43rd Annual AGU Hydrology Days, Colorado State University, Fort Collins, CO Mar 21-22, 2023

Awards and Honors

Winner, **Best Graduate Student Paper Prize**, Utah Department of Philosophy 2024–5

Recipient, **Gus T. Ridgel Doctoral Fellowship**, Mizzou (declined admission offer) 2024

Recipient, **CSU Liberal Arts Karbula Family Merit Scholarship** 2020

Recipient, **Colorado Masons’ Benevolent Fund Merit Scholarship** 2016–9

Recipient, **Ben W. Garcia CSU Economics Merit Scholarship** 2018

Recipient, **CSU Logan County Alumni Merit Scholarship** 2016, 2018

Recipient, **Fleming, CO VFW Merit Scholarship** 2016

Recipient, **Laurel Williams Education Scholarship** 2016

Teaching

GTA, PHIL 3380: Feminist Philosophy of Science SP25
University of Utah Type: in-person UG course

Primary Instructor, PHIL 280: Philosophy of Science SP24
University of Northern Colorado Type: in-person UG course

Details: Taught one 35-student section of primarily second-semester freshmen. Student population included large proportion of non-traditional students (42% first-generation, 24% Latinx/Hispanic). Topics covered include: Scientific Method, Problem of Induction, Popper and Kuhn, Scientific Explanation, Bayesianism, and Values in Science.

Primary Instructor, PHIL 150: Moral Issues FA23, SP24
University of Northern Colorado Type: in-person UG course

Details: Taught three 60-student sections that consisted primarily of freshmen. Student population included large proportion of non-traditional students (42% first-generation, 24% Latinx/Hispanic). Topics covered include: Divine Command Theory, Moral Skepticism, Consequentialism, Deontology, Virtue Theory, Hate Speech, Death Penalty, Euthanasia, Abortion, Animals, Environmental Ethics, Poverty.

Primary Instructor, PHIL/CS 201: Ethical Computing Systems FA23
Colorado State University Type: in-person UG course

Details: Co-taught one 60-student section with an instructor from the Computer Science Department. Topics covered include: Virtue Ethics, Consequentialism, Kantian Ethics, Human Enhancement, Ethical Machines, Hard Problem of Consciousness, Just War, Logic, Extended Mind Hypothesis, Medical Ethics and Consent, Large-Language Model (LLM) Ethics.

Primary Instructor, PHIL 103: Moral and Social Problems SP23, FA23, SP24
Colorado State University Type: in-person UG course

Details: Taught five total 40-student sections that primarily consisted of non-philosophy freshmen students. Topics covered include: Divine Command Theory, Moral Skepticism, Consequentialism, Deontology, Rights, Virtue Theory, Free Speech, Racism and Policing, Death Penalty, Theories of Justice, Euthanasia, Abortion, Animal Rights, Environmental Ethics, Poverty.

GTA, PHIL 100: Appreciation of Philosophy FA20, SP21, SP22
Colorado State University Type: in-person and remote UG courses

GTA, PHIL 120: History and Philosophy of Scientific Thought FA21
Colorado State University Type: in-person UG course

Professional Development

Member*Philosophy of Science Reading Group*

Aug 2024—Present

University of Utah

- Read and discussed a recent philosophy of science publication each week of the semester.

Co-Advisor*Undergraduate Research Project*

May 2023—Jan 2024

CSU (Department of Statistics)

- Obtained survey data from David Bourget and David Chalmers.
- Acted as a philosophy consultant on a web application designed to view philosophy survey data.
- Complete web application can be found on this page: <https://survey2020.philpeople.org>

Member*Philosophy of Statistics Book Club*

Feb 2019—May 2023

Colorado State University

- Read several books on the history and philosophy of statistics.
- Attended meetings where I discussed statistics with working statisticians, scientists, teachers, professors (from various disciplines), academic administrators, as well as undergraduate and graduate students.

Attendee*Epistemology of Science Workshop*

Apr 20-21, 2023

Colorado State University

- Attended and participated in workshop presentations from Jay Odenbaugh, Domenica Romagni, Collin Rice, Soazig Le Bihan, Melinda Fagan, and Kareem Khalifa.

External Reviewer*Stance: An International Undergraduate Philosophy Journal*

Oct 2018—May 2019

Remote

- Developed strong writing and editing skills by reviewing over 20 articles for an international undergraduate philosophy journal.
- Learned how to effectively communicate and work with a team in a digital environment.
- Utilized effective research techniques to quickly understand a variety of technical topics.
- Drafted Acceptance, Resubmit, and Rejection letters which were sent to authors.

Co-Manager and Co-Founder*Logan County Farmer's Market*

May 2013—May 2016

Sterling, CO

- Managed social media accounts to market and advertise a new farmer's market.
- Helped grow the market from its creation to the eventual attainment of a \$10,000 grant.