

CURRICULUM VITAE: SOUMIK PURKAYASTHA

Primary appointment:

A740 Crabtree Hall, Department of Biostatistics and Health Data Science, University of Pittsburgh, 130 De Soto Street, Pittsburgh, PA 15261.

+1-412-624-0336

Email: soumik@pitt.edu

Secondary appointment:

2A118 Bldg. 30, Center for Healthcare Evaluation, Research, and Promotion, VA Pittsburgh Healthcare System, 4100 Allequippa St, Pittsburgh, PA 15240

+1-412-360-2214

Email: soumik.purkayastha@va.gov

soumikp.github.io

1. Academic Interests

- Causal discovery and inference
- Spatiotemporal analysis/Infectious disease modeling
- Health services research

2. Education and Training

Year(s)	University, city, state	Degree, Year Awarded	Field
2014-17	St. Xavier's College (Autonomous), Kolkata, WB, INDIA	B.Sc. (Hons.), 2017	Statistics
2017-19	Indian Statistical Institute, Kolkata, WB, INDIA	M.Stat., 2019	Statistics
2019-21	University of Michigan, Ann Arbor, MI, USA	M.S., 2021	Biostatistics
2019-24	University of Michigan, Ann Arbor, MI, USA	Ph.D., 2024	Biostatistics

3. Appointments and Positions

3.a. Academic

Year(s)	Title	Department, School, Name and location of institution
2019-23	Graduate Student Research Assistant	Department of Biostatistics, University of Michigan, Ann Arbor, MI, USA.
2023-24	Rackham Predoctoral Fellow	Rackham Graduate School, University of Michigan, Ann Arbor, MI, USA.
2024-	Assistant Professor (tenure stream)	Department of Biostatistics and Health Data Science, University of Pittsburgh, Pittsburgh, PA, USA.
2024-	Research Biostatistician	Center for Healthcare Evaluation, Research, and Promotion, VA Pittsburgh Healthcare System, Pittsburgh, PA, USA.

CURRICULUM VITAE: SOUMIK PURKAYASTHA

3.b. Non-Academic

Years	Title	Name and location of organization
2018	Data Science intern	Walmart Labs, Bengaluru, KA, INDIA
2021	AI/ML intern	Apple Inc., Cupertino, CA, USA

4. Membership in Professional and Scientific Societies

Years Inclusive	Name of Society
2021-	International Biometrics Society, Eastern North American Region (ENAR)
2021-	American Statistical Association (ASA)
2021-	Institute of Mathematical Statistics (IMS)
2022-	International Biometrics Society, Western North American Region (WNAR)
2023-	International Indian Statistical Association (IISA)
2024-	International Chinese Statistical Association (ICSA)
2026-	International Statistical Institute (ISI)

5. Honors

Year of Award	Title of Award and Awarding Association
2017-19	Merit-based scholarship for good academic performance, Indian Statistical Institute, Kolkata, WB, INDIA.
2019	Sabyasachi Roy Memorial Gold Medal, Indian Statistical Institute, Kolkata, WB, INDIA.
2019	Michigan Data Science Challenge Winner, Michigan Institute of Data Science, University of Michigan, Ann Arbor, MI, USA.
2020	Richard G. Cornell Fellowship, Department of Biostatistics, University of Michigan, Ann Arbor, MI, USA.
2022-24	Rackham Conference Travel Grant (awarded annually), Rackham Graduate School, University of Michigan, Ann Arbor, MI, USA.
2023	Rising Star Award, School of Public Health, University of Michigan, Ann Arbor, MI, USA.
2023	Best Paper Award and Best Presentation (Runner-up) Award, Western North American Region of the International Biometrics Society.
2023-24	Rackham Predoctoral Fellowship, Rackham Graduate School, University of Michigan, Ann Arbor, MI, USA.

6. Professional Activities

6.a. Teaching

CURRICULUM VITAE: SOUMIK PURKAYASTHA

6.a.i. Courses Taught

Year(s)	Course Number, Title	Credits, Average Enrollment	Role in course
2025 Fall	BIOST 2155: Introductory Statistical Learning for Health Sciences	2 credits, 14 students	Primary instructor

6.a.ii. Other Teaching (lectures, tutorials, and continuing education courses)

Year(s)	Type of Teaching	Title
2024 Fall	Guest lecture	Fundamentals of Public Health, BS in Public Health Degree Program, School of Public Health, University of Pittsburgh
2024 Fall	Guest lecture	BIOST 2145 Health Data Science, MS in Biostatistics Degree Program, School of Public Health, University of Pittsburgh
2025 Fall	Guest lecture	Fundamentals of Public Health, BS in Public Health Degree Program, School of Public Health, University of Pittsburgh

6.a.iii. Major Advisor for Graduate Student Essays, Theses, and Dissertations

Name of Student	Year of Degree	Type of Document	Notes
Zhiyi Yang	PhD in Biostatistics (202x expected)	Dissertation, name not fixed yet	Dissertation co-advisor
Feier Chang	PhD in Biostatistics (202x expected)	Dissertation, name not fixed yet	Dissertation advisor
Vani Patel	MS in Biostatistics (2026 expected)	Thesis, name not fixed yet	Thesis advisor

6.a.iv. Service on Masters or Doctoral Committees

Name of Student	Degree Awarded Year	Type of Document
Joseph Armstrong	MS in Biostatistics (2026)	Thesis, <i>Prediction of PM 2.5 Using Geospatial Machine Learning Methods</i>
Sanika Kamath	MS in Human Genetics (2026)	Thesis, <i>Leveraging Single-Cell Reference Atlases to Enhance Predictive Biomarker Discovery for Cancer Immunotherapy</i>
Xin Li	MS in Biostatistics (2026)	Thesis, <i>Emerging Risk Factors and Temporal Patterns in Hospitalized COPD Patients, 2019-2023</i>
Crystal Zang	PhD in Biostatistics (2026)	Dissertation, <i>Supervised Dimensionality Reduction Methods for Large-Scale EHR and Omics Data in Biomedical Studies</i>

6.a.v. Service on Comprehensive or Qualifying Committees

Year(s)	Student Population	Type of Exam
2024-25	16 M.S. students	MS in Biostatistics Comprehensive Exam committee
2025-26	6 M.S. students	MS in Genome Bioinformatics Comprehensive Exam committee

CURRICULUM VITAE: SOUMIK PURKAYASTHA

2025-26 18 M.S. students MS in Biostatistics Comprehensive Exam committee

6.a.vi. Mentoring of Early and Mid-Career Faculty

Dates	Name of Faculty	Position of Faculty Member
2025-	Joshua Gordon (Competitive Career Development Fund, VA Pittsburgh Healthcare System)	Affiliate Investigator, Center for Healthcare Evaluation, Research, and Promotion, VA Pittsburgh Healthcare System
2026-	Manisha Bhattacharyya (Career Development Award, VA Health Services Research)	COIN Investigator, Center for Healthcare Evaluation, Research, and Promotion, VA Pittsburgh Healthcare System

6.a.vii. Academic Advising

Name of Student	Degree Awarded Year	Position
Alexandra Tirendi	MS in Biostatistics (2027 expected)	Academic Advisor
Feier Chang	PhD in Biostatistics (202x expected)	Academic Advisor

6.a.viii. Supervision and Mentoring of Student/Graduate Student Researchers (GSR)

Name of Student	Degree Awarded Year	Position
Jipeng Zhang	PhD in Biostatistics (2027 expected)	PhD GSR
Xizhi Qu	PhD in Rehabilitation Science (2029 expected)	PhD GSR

6.a.ix. Other Supervision and Mentoring

Dates	Name	Position
2024-	David Frank	Health Science Specialist, Center for Healthcare Evaluation, Research, and Promotion, VA Pittsburgh Healthcare System

6.b. Research and Training

6.b.i. Grants and Contracts Received

Completed: Co-Investigator/Statistician

Year(s)	Grant and/or Contract Number and Title	Source	Award Amount	%Effort
2024-25	<i>Health-related Social Needs and Suicidality Among Sexual Minority Veterans</i> . P.I. J. Gordon	VA CCDF	\$47,217	15% effort

Current: Co-Investigator/Statistician

CURRICULUM VITAE: SOUMIK PURKAYASTHA

Year(s)	Grant and/or Contract Number and Title	Source	Award Amount	%Effort
2025-26	<i>HPV Vaccination and the Future Burden of HPV+ Oropharyngeal Cancer in the Veterans Health Administration.</i> P.I.: J. Zevallos	Merck	\$334,094	15% effort
2026-29	<i>Characterizing the Quality and Equity of Evidence-based Prescribing for Hospitalized Veterans.</i> P.I.: T. Anderson and U. Essien	VA Health Systems Research	\$800,000	10% effort
2024-29	<i>Developing User-Centered Reporting Strategies to Promote Health Equity in the Veterans Health Administration.</i> P.I.: L. R. M. Hausmann	VA Health Systems Research	\$5,305,000	25% effort
2026-27	<i>AI-assisted Device Risk Identification System (AIDRIS) to perform rapid and ongoing identification of insulin pump risks,</i> P.I.: R. Codario and J. Estock	Breakthrough T1D	\$189,000	10% effort

6.b.ii. Grants and Contracts Pending

Year(s)	Grant and/or Contract Number and Title	Source	Award Amount	%Effort	Role
12.2025 (Awarded)	<i>Optimizing HPV Vaccination Strategies for Head and Neck Cancer Prevention in Veterans</i> P.I.: J. Zevallos	VA Health Systems Research	\$350,000	10% effort	Co-I
12.2025 (Awarded)	<i>Understanding How Military Exposures Influence Sarcoidosis Patterns, Prognosis, and Treatment Response to Improve Outcomes for Veterans</i> P.I. M. Seedahmed	VA Health Systems Research	\$1,890,000	15%	Co-I
12.2025	<i>Safety Architecture for Veteran-use Electronic Medical Devices (SAVEMD)</i> P.I.s: J. Estock and R. Codario	VA Health Systems Research	\$350,000	15%	Co-I
01.2026	<i>Resolving the Directionality of Depression and Inflammation in Longitudinal Survey Data</i> P.I. S. Purkayastha	National Institutes of Health	\$275,000	15%	PI
01.2026	<i>Resolving the Directionality of Depression and Inflammation in Longitudinal Survey Data</i> P.I. S. Purkayastha	University of Pittsburgh	\$50,000	10%	PI
04.2026	<i>Evaluating the VA National Pharmacogenomic Program to Reduce Adverse Drug Events in Older Adults in the VA Nursing Home</i> P.I. C. Kistler	National Institutes of Health	\$275,000	15%	Co-I

6.c. Invited Presentations Related to Research

Date	Title of Presentation	Venue
Jun 2025	Examining Directional Association between Depression and Anxiety	International Indian Statistical Association Conference, <i>Lincoln, USA</i>

CURRICULUM VITAE: SOUMIK PURKAYASTHA

Jul 2025	Examining Directional Association between Depression and Anxiety	New Researchers Conference, Institute of Mathematical Statistics, <i>Nashville, USA</i>
Dec 2025	A Mechanistic Framework for Collider Detection in Observational Data	Int. Conf. on Computational and Financial Econometrics and Computational and Methodological Statistics, <i>London, UK</i>
Dec 2025	A Mechanistic Framework for Collider Detection in Observational Data	Jt. Meetings of 2025 Taipei Int. Statistical Symposium and 13th ICSA Int. Conference, <i>Taipei, TAIWAN</i>
Jun 2026	Quantification and Inference of Asymmetric Relations Under Generative Exposure Mappings (upcoming)	ISI Regional Statistics Conference, <i>Valetta, MALTA</i>
Jul 2026	Causal Discovery for Self-Reported Mental Health Data (upcoming)	IBS International Biometric Conference, <i>Seoul, SOUTH KOREA</i>
Aug 2026	Causal Discovery for Self-Reported Mental Health Data (upcoming)	ASA Joint Statistical Meeting, <i>Boston, USA</i>

6.d. Other Research and Training Activities

Date	Name	Venue
Mar 2026	2026 Program in Quantitative Genomics: AI for Medical Data	Harvard School of Public Health, <i>Boston, USA</i>

6.e. Publications; h-index: 10 ([Google scholar](#)) as of May 2026; +: co-first author; *: trainee.

6.e.i. Refereed Articles – Published or In Press

- Ray, D., Salvatore, M., Bhattacharyya, R., Wang, L., Du, J., Mohammed, S., **Purkayastha, S.**, Halder, A., Rix, A., Barker, D., Kleinsasser, M., Zhou, Y., Bose, D., Song, P., Banerjee, M., Baladandayuthapani, V., Ghosh, P., & Mukherjee, B. (2020). *Predictions, Role of Interventions, and Effects of a Historic National Lockdown in India's Response to the COVID-19 Pandemic: Data Science Call to Arms*. Harvard Data Science Review, (Special Issue 1).
- Giri, S., **Purkayastha, S.**, Hazra, S., Chanda, A., Das, I. and Das, S., (2020). *Prediction of monthly Hilsa (*Tenualosa ilisha*) catch in the Northern Bay of Bengal using Bayesian structural time series model*. Regional Studies in Marine Science, 39, p.101456.
- Zhou, Y., Wang, L., Zhang, L., Shi, L., Yang, K., He, J., Bangyao, Z., Overton, W., **Purkayastha, S.**, & Song, P. (2020). *A Spatiotemporal Epidemiological Prediction Model to Inform County-Level COVID-19 Risk in the United States*. Harvard Data Science Review, (Special Issue 1)
- Purkayastha, S.**, Salvatore, M. and Mukherjee, B., (2020). *Are women leaders significantly better at controlling the contagion during the COVID-19 pandemic?* Journal of Health and Social Sciences, 5(2), p.231.
- Tang, L., Zhou, Y., Wang, L., **Purkayastha, S.**, Zhang, L., He, J., Wang, F. and Song, P.X.K., (2020). *A review of multi-compartment infectious disease models*. International Statistical Review, 88(2), pp.462-513.
- Purkayastha, S.** and Song, P., (2021). *Discussion on “The timing and effectiveness of implementing mild interventions of COVID-19 in large industrial regions via a synthetic control method” by Tian et al.* Statistics and Its Interface, 14(1), pp.21-22.

CURRICULUM VITAE: SOUMIK PURKAYASTHA

7. Salvatore, M., Basu, D., Ray, D., Kleinsasser, M., **Purkayastha, S.**, Bhattacharyya, R. and Mukherjee, B., (2020). Comprehensive public health evaluation of lockdown as a non-pharmaceutical intervention on COVID-19 spread in India: national trends masking state-level variations. BMJ open, 10(12), p.e041778.
8. **Purkayastha, S.**, Bhattacharyya, R., Bhaduri, R., Kundu, R., Gu, X., Salvatore, M., Ray, D., Mishra, S. and Mukherjee, B., 2021. A comparison of five epidemiological models for transmission of SARS-CoV-2 in India. BMC Infectious Diseases, 21, pp.1-23.
9. **Purkayastha, S.**, Kundu, R., Bhaduri, R., Barker, D., Kleinsasser, M., Ray, D. and Mukherjee, B., (2021). Estimating the wave 1 and wave 2 infection fatality rates from SARS-CoV-2 in India. BMC Research Notes, 14, pp.1-7.
10. Zimmermann, L., Bhattacharya, S., **Purkayastha, S.**, Kundu, R., Bhaduri, R., Ghosh, P. and Mukherjee, B., (2021). SARS-CoV-2 infection fatality rates in India: systematic review, meta-analysis and model-based estimation. Studies in Microeconomics, 9(2), pp.137-179.
11. Bhaduri, R.⁺, Kundu, R.⁺, **Purkayastha, S.**, Kleinsasser, M., Beesley, L.J., Mukherjee, B. and Datta, J., (2022). Extending the susceptible-exposed-infected-removed (SEIR) model to handle the false negative rate and symptom-based administration of COVID-19 diagnostic tests: SEIR-fansy. Statistics in Medicine, 41(13), pp.2317-2337.
12. Salvatore, M.⁺, **Purkayastha, S.**⁺, Ganapathi, L., Bhattacharyya, R., Kundu, R., Zimmermann, L., Ray, D., Hazra, A., Kleinsasser, M., Solomon, S. and Subbaraman, R., (2022). Lessons from SARS-CoV-2 in India: A data-driven framework for pandemic resilience. Science Advances, 8(24), p.eabp8621.
13. **Purkayastha, S.** and Song, P.X.K., (2024). fastMI: A fast and consistent copula-based nonparametric estimator of mutual information. Journal of Multivariate Analysis, 201, p.105270.
14. Zhang, L., **Purkayastha, S.**, Kirsner, R., Spino, C. and Song, P. X. K., (2025) Determinants of Enrolment in 284 Clinical Trials for Healing Diabetic Foot Ulcers: A Systematic Review. BMJ Open, 15(7), e095512.
15. Lamba, S., Frank, D., McCoy, J.L., Russell, L.E., **Purkayastha, S.**, Gordon, J.H., Leder, S.M., Procario, G.T., Moy, E.M., Hausmann, L.R.M., (2025), Health-Related Social Needs Among LGB+ Veterans. JAMA Network Open, 8(10), e2539986
16. Bessette, L., Essien, U., Parr, A., Mor, M., **Purkayastha, S.**, Gellad, W., Hausmann, L., Fine, M. and Anderson, T., (2025). Underutilization of guideline-directed medical therapy following hospitalizations for heart failure with reduced ejection fraction among US Veterans, 2022 to 2023. Circulation, 152(3), A4359558.
17. **Purkayastha, S.** and Song, P. X. K., (2026), Quantification and cross-fitting inference of asymmetric relations under generative exposure mapping models. Statistica Sinica, DOI: 10.5705/SS.202025.0236.
18. Russell, L. E.⁺, Frank, D. A.⁺, **Purkayastha, S.**, McCoy, J. L., Leder, S. M., Gordon, J. H., Lamba, S., Procario, G. T., Moy, E. M., Hausmann, L. R. M. (2026), Racial, Ethnic, and Sex Differences in Social Risks and Social Needs Concordance Among Veterans. JAMA Network Open, 9(2), e2559892.
19. Sethi, V., **Purkayastha, S.**, Liu, H., Spitz, F., Hariharan, S., Puttarajappa, C., & Molinari, M. (2026). Drug Overdose Mortality Decline and Kidney Transplantation in the United States. American Journal of Transplantation, 26(1), S94-S95.
20. **Purkayastha, S.**, Basu, A. (2026) On Minimum Bregman Divergence Inference. Mathematics, 14(4):670.
21. Anderson, T. S., **Purkayastha, S.**, Parr, A., Bernstein, E. Y., Bachrach, R. L., Mor, M. K., Gellad, W. F., Hausmann, L. R. M., Fine, M. J., Essien, U. R. (2026). Initiation of Medications for Alcohol Use Disorder Among Hospitalized Veterans: A Retrospective Cohort Study. Annals of Internal Medicine, DOI: 10.7326/ANNALS-26-00089.

6.e.ii. Refereed Articles – Submitted/Preprint

CURRICULUM VITAE: SOUMIK PURKAYASTHA

1. **Purkayastha, S.** and Song, P. X. K., (2025), *A Framework for Covariate-Adjusted Bivariate Causal Discovery*. ARXIV.2502.10317
2. Sethi, V., **Purkayastha, S.**, Liu, H., Zhang, X. M., Abdullah, A., Spitz, F., Elias, C., Demirors, B., Puttarajappa, C., Molinari, M. (2025) *Drug Overdose Mortality Decline and Deceased Donor Transplantation in the United States*. PREPRINT UPON REQUEST
3. Helou, V, Carlson, K. M., **Purkayastha, S.**, Mazul A. L., Contrera, K. J., Zevallos, J. P. (2026) *Evolving Trends in Definitive Surgical Management of Oropharyngeal Squamous Cell Carcinoma in the United States*. PREPRINT UPON REQUEST
4. **Purkayastha, S.**, Frank, D., Russell, L.E., Hausmann, L.R.M. (2026) *Survey-Weighted Ordinal Causal Discovery: Application to Veteran Social Needs, Mental Health, and Well-Being*. [[Paper](#) and [supplement](#)]
5. Chang, F.*, and **Purkayastha, S.** (2026). *Fed-GEE: Federated generalized estimating equations for privacy-preserving population-level inference for multicenter longitudinal data* [[Paper](#) and [supplement](#)].
6. Bernstein, E. Y., Bessette, L. G., **Purkayastha, S.**, Parr, A., Mor, M. K., Park, T. W., Hausmann, L. R. M., Gellad, W. F., Essien, U. R., & Anderson, T. S. (2026). *Post-hospitalization persistence to medications for alcohol use disorder*. PREPRINT UPON REQUEST

6.e.iii. Published Abstracts

1. Lamba, S., Frank, D., McCoy, J.L., Russell, L.E., **Purkayastha, S.**, Gordon, J.H., Leder, S.M., Procario, G.T., Moy, E.M., Hausmann, L.R.M., (2025). *The Prevalence of Social Needs Among LGB+ Veterans: A National Survey of VHA Primary Care Patients*. 2025 Academy Health Annual Research Meeting, Minneapolis, USA.
2. Bessette, L. G., Essien, U. R., Parr, A., Mor, M. K., **Purkayastha, S.**, Gellad, W. F., Hausmann, L. R. M., Fine, M., Anderson, T. S., (2025). *Underutilization of guideline-directed medical therapy following heart failure hospitalizations among U.S. Veterans, 2022 to 2023*. 2025 American Heart Association Scientific Sessions, New Orleans, USA.
3. Hausmann, L. R. M., Russell, L. E., Frank, D. A., **Purkayastha, S.**, McCoy, J. L., Leder, S. M., Gordon, J. H., Procario, G. T., Lamba, S., Moy, E. M., (2025) *Racial, Ethnic, and Sex Differences in Agreement between Self-reported Social Risks and Need for Support*. Society of Behavioral Medicine 47th Annual Meeting & Scientific Sessions, Chicago, USA.
4. Sethi, V., **Purkayastha, S.**, Liu, H., Zhang, X. M., Abdullah, A., Spitz, F., Elias, C., Demirors, B., Puttarajappa, C., Molinari, M., (2025) *Impact of Drug Overdose Mortality Decline on Kidney Transplantation in the US*. 21st Annual Academic Surgical Congress, Orlando, USA.
5. Sethi, V., **Purkayastha, S.**, Liu, H., Spitz, F., Hariharan, S., Puttarajappa, C., Molinari, M., (2025) *Drug Overdose Mortality Decline and Kidney Transplantation in the United States*. American Society of Transplant Surgeons Winter Symposium, Phoenix, USA.
6. Ren, J., Parr, A., **Purkayastha, S.**, Mor, M., Brown, K., Tang, J., Hausmann, L., Gellad, W., Essien, U., Anderson, T. (2026). *Variation in Guideline-Concordant Inhaler Regimen Intensification Following COPD Hospitalizations Across Veterans Affairs Medical Centers*. American Thoracic Society International Conference, Orlando, USA.
7. Essien, U.R., **Purkayastha, S.**, Parr, A., Mor, M. K., Tang, J. J., Gellad, W. F., Hausmann, L. R. M., Anderson, T. S., (2026) *Hospital-Level Variation in Quality and Equity of Prescribing Medications for Alcohol Use Disorder in VA*. 2026 Annual Meeting of the Society of General Internal Medicine, Washington D.C., USA.
8. Bessette, L. G., Essien, U. R., Parr, A., Mor, M. K., **Purkayastha, S.**, Gellad, W. F., Hausmann, L. R. M., Anderson, T. S., (2026) *Adherence and persistence to SGLT2 inhibitors following hospitalizations for*

CURRICULUM VITAE: SOUMIK PURKAYASTHA

heart failure among U.S. Veterans. 2026 Annual Meeting of the Society of General Internal Medicine, Washington D.C., USA.

9. Bernstein, E. Y., Bessette, L. G., Parr, A., **Purkayastha, S.**, Mor, M. K., Gellad, W. F., Hausmann, L. R. M., Essien, U. R., Anderson, T. S., (2026) *Persistence to medications for alcohol use disorder initiated during hospitalization*. 2026 Annual Meeting of the Society of General Internal Medicine, Washington D.C., USA.
10. Helou, V., Carlson, K. M., **Purkayastha, S.**, Mazul, A. L., Contrera, K. J., Zevallos, J. P. (2026) *Evolving Trends in Definitive Surgical Management of Oropharyngeal Squamous Cell Carcinoma: A National Cancer Database Analysis*. American Head and Neck Society 2026 Annual Meeting, Boston, USA.

6.e.iv. Presentations

1. Eastern North American Region (ENAR) of the International Biometric Society Spring Meeting (March 2023). *"An information-theoretic framework for causal discovery in epigenetic data"*. Nashville, USA.
2. Western North American Region (WNAR) of the International Biometric Society Spring Meeting (June 2023). *"Asymmetric predictability in causal discovery: an information theoretic approach"*. Anchorage, USA.
3. Joint Statistical Meetings (August 2023). *"Asymmetric predictability in causal discovery: an information theoretic approach"*. Toronto, CANADA.
4. Eastern North American Region (ENAR) of the International Biometric Society Spring Meeting (March 2025). *"Examining Directional Association between Depression and Anxiety"*. New Orleans, USA.
5. International Indian Statistical Association Conference (June 2025). *"Examining Directional Association between Depression and Anxiety"*. Lincoln, USA.
6. Joint Statistical Meetings (August 2025). *"Examining Directional Association between Depression and Anxiety"*. Nashville, USA.
7. 8th International Conference on Econometrics and Statistics: EcoSta (August 2025). *"Examining Directional Association between Depression and Anxiety"*. Tokyo, JAPAN.
8. 19th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics: CMStatistics (December 2025). *"A Mechanistic Framework for Collider Detection in Observational Data"*. London, UK.
9. Joint Meetings of 2025 Taipei International Statistical Symposium and 13th ICSA International Conference (December 2025), *"A Mechanistic Framework for Collider Detection in Observational Data"*. Taipei, TAIWAN.
10. ISI Regional Statistics Conference (June 2026). *"Causal Discovery for Self-Reported Mental Health Data"*. Valetta, MALTA ([upcoming](#))
11. IBS International Biometric Conference (July 2026). *"Causal Discovery for Self-Reported Mental Health Data"*. Seoul, SOUTH KOREA ([upcoming](#))
12. ASA Joint Statistical Meeting (August 2026). *"Causal Discovery for Self-Reported Mental Health Data"*. Boston, USA ([upcoming](#))

6.e.v. Non-Print Media (Software, electronic)

1. Bhaduri R.⁺, Kundu R.⁺, **Purkayastha S.**, Beesley L., Mukherjee B., Kleinsasser, M. (2021). *SEIRfancy: Extended Susceptible-Exposed-Infected-Recovery Model* [[link](#)]
2. **Purkayastha, S.** and Song, P.X.K., 2024. *fastMI: A fast and consistent copula-based nonparametric estimator of mutual information*. [[link](#)]
3. **Purkayastha, S.** and Song, P.X.K., 2024. *comet: Collider-mediator testing using information theory* [[link](#)]

CURRICULUM VITAE: SOUMIK PURKAYASTHA

4. **Purkayastha, S.** and Song, P.X.K., 2026: *causalGEM: Bivariate causal discovery via the Generative Exposure Model* [\[link\]](#)
5. **Purkayastha, S.**, Frank, D., Russell, L.E., Hausmann, L.R.M., 2026: *swaoBN: Survey-Weighted, Covariate-Adjusted Ordinal Bayesian Network Learning* [\[link\]](#)
6. Chang, F.* and **Purkayastha, S.**: *FedGEE: Federated Generalized Estimating Equations for Privacy-Preserving Population-Level Inference for Multicenter Longitudinal Data* [\[link\]](#)

6.e.vi. Technical and Government Reports

1. *Opportunities for Equity-Guided Improvement in GLP-1 Agonist Prescribing in VA*, VA Office of Health Equity, P.I. Carolyn Thorpe.

6.e.vii. Other Publications/Press Coverage

1. Basu, D., Salvatore, M., Kleinsasser, M., **Purkayastha, S.**, Bhattacharya, R., and Mukherjee, B., *We're Focusing on National Data on COVID-19 When We Should Be Looking at State- Level Trends*. The Wire, 2020.
2. Mukherjee, B., Purkayastha, S., Salvatore, M., & Mishra, S. *Underreporting does hurt the COVID fight*. The Hindu, 2021.
3. Laguipo, A., *A study of the COVID fatality rates in India during waves 1 and 2*. News-Medical.Net, 2021.
4. Bastian, H., *Women Versus Men Leaders in the Pandemic: An Update and Dig Into the Latest Data*. PLOS Blogs, 2022

7. Service

7.a. Service to School and University

Year(s)	Activity	Position
2024-25	Graduate Research and Development Seminar Organizer	Department of Biostatistics and Health Data Science, University of Pittsburgh
Mar 2025	Research Day Poster Competition Judge	Department of Biostatistics and Health Data Science, University of Pittsburgh
Apr 2025	Dean's Day Poster Competition Judge	School of Public Health, University of Pittsburgh
Mar 2026	Research Day Poster Competition Judge	Department of Biostatistics and Health Data Science, University of Pittsburgh
2025-27	Seminar and Research Day organizer	Department of Biostatistics and Health Data Science, University of Pittsburgh
2025-26	Internal Grant Reviewer	Center for Healthcare Evaluation, Research, and Promotion
2025-26	PhD in Biostatistics Admissions Committee (300+ applications, five students admitted)	Department of Biostatistics and Health Data Science, University of Pittsburgh

7.b. Manuscript and other Documentation/Publication Review

ASA Discoveries, Annals of Applied Statistics, Biometrics, Communications in Statistics (Case Studies and Data Analysis), Health Services Research, Journal of the American Statistical Association, Journal of the Royal

CURRICULUM VITAE: SOUMIK PURKAYASTHA

Statistical Society, Series A (Statistics in Society), New England Journal of Statistics in Data Science, PLOS One, Scientific Reports, Statistics in Medicine, Statistical Science.

7.c. Service to Field of Scholarship

Date(s)	Organization/Agency	Position and/or Type of Service
Dec 2025	American Statistical Association, Health Policy in Statistics Section	Student Paper Competition Reviewer

7.d. Leadership in Scholarly and Professional Organizations and Honorary Societies

Date(s)	Organization/Agency	Position and/or Type of Service
2026-	American Statistical Association, Health Policy in Statistics Section	Secretary

7.e. Governmental Organizations

Date(s)	Organization/Agency	Position and/or Type of Service
Jan 2025	Congressionally Directed Medical Research Program (CDMRP) Discovery Award, US Department of Defense	Specialist Biostatistician Grant Reviewer