



Behzad Naderalvojoud

Biostatistician 2, Computational Medicine

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BIO

Behzad Naderalvojoud is a biomedical informatics scientist at the Stanford Center for Biomedical Informatics Research. He received his Ph.D. degree in computer science at Hacettepe University, Turkey, in 2020. He is immersed in the fields of machine learning, deep learning, natural language understanding, and Big data analytics and works on health knowledge discovery platforms that transfer Big health data from volume-based to value-based by generating relational knowledge leading to innovative treatments, predictive therapeutic outcomes, and early diagnosis. He was the leader of many industrial AI projects in the fields of healthcare intelligence and information management in the Eureka cluster programs.

Dr. Naderalvojoud has published several papers in the field of natural language understanding by working on word sense disambiguation, sentiment analysis, neural word embeddings, and deep learning models through national and international projects.

He is currently working on the funded NLM grant project "Advancing Knowledge Discovery for Postoperative Pain Management" under the supervision of Dr. Tina Hernandez-Boussard. He develops descriptive, predictive, and analytical tools using OMOP CDM for postoperative pain research to facilitate timely generation of evidence across multiple populations and settings.

Publications

PUBLICATIONS

- **Graph augmented transformers improve chemotherapy toxicity symptom extraction from clinical notes.** *Nature communications*
Saquand, E., Naderalvojoud, B., Schuessler, M., Pillai, M., Rice, B. T., Blayney, D. W., Hernandez-Boussard, T.
2026
- **Cost-Benefit Analysis of Preventing Acute Care Use in Oncology Patients Following Systemic Therapy Using Medicare Claims Data: Retrospective Cohort Study.** *JMIR medical informatics*
Keller, S. A., Schuessler, M., Naderalvojoud, B., Seto, T., Tian, L., Roy, M., Hernandez-Boussard, T.
2025; 13: e77891
- **Large Language Models Outperform Traditional Natural Language Processing Methods in Extracting Patient-Reported Outcomes in Inflammatory Bowel Disease.** *Gastro hep advances*
Patel, P. V., Davis, C., Ralbovsky, A., Tinoco, D., Williams, C. Y., Slatter, S., Naderalvojoud, B., Rosen, M. J., Hernandez-Boussard, T., Rudrapatna, V.
2025; 4 (2): 100563
- **Evaluating the impact of data biases on algorithmic fairness and clinical utility of machine learning models for prolonged opioid use prediction.** *JAMIA open*
Naderalvojoud, B., Curtin, C., Asch, S. M., Humphreys, K., Hernandez-Boussard, T.

2025; 8 (5): ooaf115

- **Ensemble learning to enhance accurate identification of patients with glaucoma using electronic health records.** *JAMIA open*
Mungle, T., Naderalvojud, B., Andrews, C. A., An, H. S., Bicket, A., Zhang, A., Rosenthal, J., Lee, W. S., Ludwig, C. A., Mekonnen, B., Pershing, S., Stein, J. D., Hernandez-Boussard, et al
2025; 8 (4): ooaf080
- **Post-operative pain management in elders** *HELIYON*
Titan, A. L., Naderalvojud, B., Suarez, P., Coquet, J., Baiu, I., Hernandez-Boussard, T., Curtin, C.
2025; 11 (12)
- **Large Language Models Outperform Traditional Natural Language Processing Methods in Extracting Patient- Reported Outcomes in Inflammatory Bowel Disease** *GASTRO HEP ADVANCES*
Patel, P., Davis, C., Ralbovsky, A., Tinoco, D., Williams, C. Y. K., Slatter, S., Naderalvojud, B., Rosen, M. J., Hernandez-Boussard, T., Rudrapatna, V.
2025; 4 (2)
- **Large language models outperform traditional natural language processing methods in extracting patient-reported outcomes in IBD.** *medRxiv : the preprint server for health sciences*
Patel, P. V., Davis, C., Ralbovsky, A., Tinoco, D., Williams, C. Y., Slatter, S., Naderalvojud, B., Rosen, M. J., Hernandez-Boussard, T., Rudrapatna, V.
2024
- **Towards global model generalizability: independent cross-site feature evaluation for patient-level risk prediction models using the OHDSI network.** *Journal of the American Medical Informatics Association : JAMIA*
Naderalvojud, B., Curtin, C. M., Yanover, C., El-Hay, T., Choi, B., Park, R. W., Tabuenca, J. G., Reeve, M. P., Falconer, T., Humphreys, K., Asch, S. M., Hernandez-Boussard, T.
2024
- **Trends in Influenza Vaccination Rates among a Medicaid Population from 2016 to 2021.** *Vaccines*
Naderalvojud, B., Shah, N. D., Mutanga, J. N., Belov, A., Staiger, R., Chen, J. H., Whitaker, B., Hernandez-Boussard, T.
2023; 11 (11)
- **Improving machine learning with ensemble learning on observational healthcare data.** *AMIA ... Annual Symposium proceedings. AMIA Symposium*
Naderalvojud, B., Hernandez-Boussard, T.
2023; 2023: 521-529