

ANAS BELOUALI

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👤 PROFILE

Biomedical informatics researcher with extensive experience in mental health informatics, focused on patient subtyping and phenotyping using longitudinal healthcare data to identify high-risk clinical trajectories. Skilled in using large-scale clinical and administrative data to develop, evaluate, and translate AI and statistical models for population health and precision medicine. Seeking opportunities to apply these skills to complex, high-impact healthcare problems.

🎓 EDUCATION

Johns Hopkins University, School of Medicine PhD in Biomedical Informatics and Data Science - NLM T15 Fellow	Baltimore, MD 2021 – 2026
Georgetown University, Biomedical Graduate Education MS in Systems Medicine	Washington, DC 2017 – 2018
Mohammed V University, Mohammadia School of Engineering BS/MS degree in Computer Engineering	Rabat, Morocco 2007 – 2010

📁 PROFESSIONAL EXPERIENCE

Postdoctoral Research Fellow	Center for Population Health IT (CPHIT), Johns Hopkins Bloomberg School of Public Health (JHSPH)	2026 – Present
Adjunct Faculty	Health Informatics and Data Science Program, Georgetown University	2026 – Present
Doctoral Researcher	Biomedical Informatics and Data Science, Johns Hopkins School of medicine	2021 – 2026
Lead Data Scientist	Innovation Center for Biomedical Informatics (ICBI), Georgetown University Medical Center (GUMC), Georgetown University	2019 – 2021
Research Instructor (Faculty)	Department of Oncology, GUMC, Georgetown University	2019 – 2021
Data Scientist	ICBI, Georgetown University	2016 – 2019
Clinical Database Programmer	MedStar Health/ GUMC	2017 – 2019
Senior Software Engineer	ICBI, Georgetown University	2013 – 2016
Analyst Programmer	Imaging Sciences and Information Systems, Georgetown University	2011 – 2013
Business Intelligence Consultant	Capgemini Consulting, Casablanca, Morocco	2010 – 2011

🔧 SELECTED WORK AND RESEARCH EXPERIENCE

CPHIT, JHSPH	Suicide risk prediction, phenotyping, and longitudinal mental health analytics using the Maryland Suicide Data Warehouse.	2021 – Present
U.S. Department of Veterans Affairs / Department of Psychiatry, GUMC	War Related Illness and Injury Study Center (WRIISC)	2015 – 2020
	Developed models to predict suicidal ideation in U.S. veterans using acoustic and linguistic features derived from speech in audio interviews.	
	Designed and implemented a mobile health platform for multimodal patient data collection and delivery of behavioral and self-management interventions in veterans with PTSD, including education, mindfulness/meditation, and sleep-related modules.	
	Supported digital health and research workflows relevant to mental health assessment, symptom monitoring, and intervention delivery in veteran populations.	
	Trauma Services Program	2012 – 2015
	Developed and maintained a telehealth web application for a randomized clinical trial in U.S. veterans with PTSD, supporting data collection, tracking, analytics, and follow-up.	
	Enabled psychiatrists to deliver CBT sessions online as part of a study comparing telehealth with in-person care.	

Lombardi Comprehensive Cancer Center	<p><i>Georgetown Immunotherapy Registry</i> — Built a clinical data warehouse integrating health records across MedStar hospitals; developed pipelines to extract adverse events from clinical notes; the registry supported more than 30 peer reviewed publications.</p> <p><i>Georgetown Database of Cancer (GDOC)</i> — Designed and developed several modules of a precision medicine platform for integrated multi-omics and clinical data analysis.</p> <p><i>Scholarly & academic work in oncology</i> — Led and supported studies on treatment outcomes, contributed to grant writing and applications, and dissemination of findings.</p>	2013 – 2020
MedStar Health Network	Conducted clinical data extraction, built visualization dashboards, and coordinated data release to principal investigators to support cohort discovery for clinical trials and real-world evidence (RWE) research.	2017 – 2019
Curtis National Hand Center	<p><i>Prediction of Opioid Use Disorder (OUD)</i> — Developed predictive models to estimate OUD risk at multiple time points after surgery; contributed to grant writing and manuscript preparation.</p> <p><i>Curtis Hand Surgery Repository</i> — Built ETL pipelines for longitudinal integration of patient-reported outcome questionnaires and EMR data.</p>	2019 – 2020
Imaging Sciences and Information Systems, GUMC	<i>Traumatic Brain Injury Program</i> – Clinical and brain imaging data integration and analysis to identify diagnostic and prognostic biomarkers of brain injury in US veterans.	2011 – 2013

CONSULTING WORK

GoGuardian	Evaluation of Beacon, a digital monitoring tool used in K-12 schools across the U.S. to identify students at risk of self-harm or suicide, assessing its impact using difference-in-differences analysis.	2025 – 2026
Hawkeye BioPharma	Provided statistical consulting on biomarker predictive utility and study design for lung cancer research.	2020 – 2021
Masarat App	Supported early-stage MVP specification, project management, and coordination projects included eKare, a mobile health app for wound-care tracking.	2012 – 2016

TEACHING EXPERIENCE

Instructor	<p>MS in Health Informatics & Data Science - Georgetown University</p> <p>HIDS-7006: AI for Health Applications – Spring 2026</p> <p>HIDS-501: Introduction to Health Data Science & Analytics – Fall 2020</p> <p>HIDS-506: AI for Health Applications – Spring 2020</p> <p>Virtual Applied Data Science Training Institute - Howard University</p> <p>VADSTI: Data Exploration and Visualization – Spring 2021</p>
Teaching Assistant	<p>Johns Hopkins School of Medicine</p> <p>ME 250.771 Introduction to Precision Medicine Data Analytics – Fall 2022</p> <p>ME 250.957 Database Querying in Health – Fall 2022</p> <p>ME 250.755 NLP in the Health Sciences – Spring 2023, and 2024</p> <p>Johns Hopkins Bloomberg School of Public Health</p> <p>602.731.86: Population and Consumer Health Informatics - Spring 2022, 2023, 2024, 2025.</p>
Guest Lecturer	<p>MS in Systems Medicine - Georgetown University</p> <p>SYSM-593: Critical Reading in System Medicine – Fall 2020</p> <p>SYSM 597: Clinical Bioinformatics – Fall 2020</p> <p>MS in Health Informatics & Data Science - Georgetown University</p> <p>HIDS-6001: Massive Health Data Fundamentals – Fall 2025</p> <p>HIDS-506: AI for Health Applications – Fall 2022</p>

SKILLS

Research competencies: Clinical data processing, Machine/Deep Learning, Observational studies, Natural Language Processing, Mental health informatics, Precision medicine, Omics data analysis, Grant and scientific writing.

Programming Languages: Python, SQL, R, Java/Android, Unix Shell scripting, Grails/Groovy, C/C++, JavaScript.

Machine Learning libraries: Scikit-learn, Pycaret, Keras, TensorFlow, PyTorch.

Cloud platforms: Google Cloud Platform, Amazon Web Services, Azure Databricks.

Data Integration: Pentaho Kettle, PL-SQL, Python, and CLI.

Data visualization: Tableau, Matplotlib, Seaborn, Plotly.

Databases: MySQL, MongoDB, PostgreSQL, SQL Server, Oracle, BigQuery, REDCap, WebCAMP.

Project management: Led cross-functional teams registry building and data warehouses projects in healthcare.

Medical vocabularies: SNOMED-CT, LOINC, RxNorm, ICD-9, ICD-10, CPT, CCSR, OMOP, FHIR, OHDSI/OMOP.

PROFESSIONAL SERVICE AND ACTIVITIES

- Peer Review
JAMIA Open
JMIR
PeerJ
Frontiers in AI
PLOS One
Progress in AI
JMIR Mental Health
Frontiers in Psychiatry
Medical Care
Journal of Affective Disorders
School Mental Health
- Conference Reviewer
AMIA Informatics Summit – 2019, 2020
SmartICT'19 - Conference on Smart Information & Communication Technologies –2019
- Organizing Committee
Health Informatics & Data Science Symposium - Georgetown University – 2015-2020
- Technical judge
Precision FDA Challenge - Brain Cancer Predictive Modeling –2020
- Volunteering
Director of analytics and coach, Districtonia Futbol — a non-profit supporting young soccer athletes from underserved communities in the Washington, DC area– 2018-2022.

HONORS AND AWARDS

- NLM T15 PhD Fellow Distinction, U.S. National Library of Medicine, National Institutes of Health (NIH) – 2021-2025
- Award for Academic Excellence, Systems Medicine Program, Georgetown University – 2018
- Center of Excellence in Regulatory Science and Innovation (CERSI) Award, Georgetown University/ FDA – 2017
- Sustained Superior Performance Award, ICBI, Georgetown University – 2014
- Award of Excellence, Mohammed V University – 2010

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES

Published/In Press

- Kitchen, C., **Belouali, A.**, Nestadt, P. S., Wilcox, H. C., & Kharrazi, H. (2026). Navigating extreme class imbalance in suicide risk prediction. *Frontiers in Psychiatry*, 16, 1679618. DOI: 10.3389/fpsy.2025.1679618.
- Belouali, A.**, Kitchen, C., Zirikly, A., Nestadt, P., Wilcox, H. C., & Kharrazi, H. (2025). Identifying and characterizing suicide decedent subtypes using deep embedded clustering. *Scientific Reports*, 15(1), 23069.
- Flores, J., Desjardins, M., Kitchen, C., **Belouali, A.**, Nestadt, P., Wilcox, H. C., & Kharrazi, H. (2025). Use of vital records to improve identification of suicide as manner of death for opioid-related fatalities. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*. PMID: 41230711; DOI: 10.1027/0227-5910/a001033.
- Zenk, M., Baid, U., Pati, S., Linardos, A., Edwards, B., Sheller, M., Foley, P., ..., **Belouali, A.**, ..., & Yang, H. (2025). Towards fair decentralized benchmarking of healthcare AI algorithms with the Federated Tumor Segmentation (FeTS) Challenge. *Nature Communications*, 16(1), 6274.
- Breneman, C. B., Pollin, K., Chun, T., Crock, L., Jachimowicz, W., McCullers, R. A., Brewster, R. C., Alaoui, A., **Belouali, A.**, Roy, M. J., Reinhard, M. J., & Costanzo, M. E. (2025). Determining the feasibility and acceptability of a randomized telehealth pilot study for veterans with chronic multisymptom illness. *Pilot and Feasibility Studies*, 11, 43.

6. Kitchen, C., Ziriky, A., **Belouali, A.**, Kharrazi, H., Nestadt, P., & Wilcox, H. C. (2024). Suicide death prediction using the Maryland Suicide Data Warehouse: A sensitivity analysis. *Archives of Suicide Research*. PMID: 38945167; DOI: 10.1080/13811118.2024.2363227
7. Bergquist, T., Schaffter, T., ..., & the Patient Mortality Prediction DREAM Challenge Consortium (including **Belouali, A.**) (2024). Evaluation of crowdsourced mortality prediction models as a framework for assessing artificial intelligence in medicine. *Journal of the American Medical Informatics Association*, 31(1), 35-44. PMID: 37996352; DOI: 10.1093/jamia/ocad255
8. He, T., **Belouali, A.**, Patricoski, J., Lehmann, H., Ball, R., Anagnostou, V., Kreimeyer, K., & Botsis, T. (2023). Trends and opportunities in computable clinical phenotyping: A scoping review. *Journal of Biomedical Informatics*, 140, 104335. PMID: 36933631; DOI: 10.1016/j.jbi.2023.104335
9. Lev-Ari, S., Serzan, M., Wu, T., Ip, A., Pascual, L., Sinclair, B., Adams, S., Marafelias, M., Ayyagari, L., Gill, S. K., Ma, B., Zaemes, J. P., Della Pia, A., Alaoui, A., Madhavan, S., **Belouali, A.**, Pecora, A., Ahn, J., Atkins, M. B., & Shah, N. J. (2023). The impact of immunosuppressive agents on immune checkpoint inhibitor efficacy in patients with advanced melanoma: A real-world, multicenter, retrospective study. *Cancer*, 129(12), 1885-1894. PMID: 36951119; DOI: 10.1002/cncr.34742
10. Breneman, C. B., Reinhard, M. J., Allen, N., **Belouali, A.**, Chun, T., Crock, L., Duncan, A. D., & Dutton, M. A. (2023). Gulf War Illness: A randomized controlled trial combining mindfulness meditation and auricular acupuncture. *Global Advances in Integrative Medicine and Health*, 12, 27536130231171856. PMID: 37151571; DOI: 10.1177/27536130231171856
11. Giladi, A. M., Shipp, M. M., Sanghavi, K. K., Zhang, G., Gupta, S., Miller, K. E., **Belouali, A.**, & Madhavan, S. (2023). Patient-reported data augment health record data for prediction models of persistent opioid use after elective upper extremity surgery. *Plastic and Reconstructive Surgery*, 152(2), 358e-366e. PMID: 36780362; DOI: 10.1097/PRS.00000000000010297
12. **Belouali, A.**, Bai, H., Raja, K., Liu, S., Ding, X., & Kharrazi, H. (2022). Impact of social determinants of health on improving the LACE index for 30-day unplanned readmission prediction. *JAMIA Open*, 5(2), ooac046. PMID: 35702627; DOI: 10.1093/jamiaopen/ooac046
13. Pati, S., Baid, U., Edwards, B., ..., **Belouali, A.**, ..., & Bakas, S. (2022). Federated learning enables big data for rare cancer boundary detection. *Nature Communications*, 13(1), 7346. PMID: 36702828; DOI: 10.1038/s41467-023-36188-7
14. Liu, S., Ding, X., **Belouali, A.**, Bai, H., Raja, K., & Kharrazi, H. (2022). Assessing the racial and socioeconomic disparities in postpartum depression using population-level hospital discharge data: Longitudinal retrospective study. *JMIR Pediatrics and Parenting*, 5(4), e38879. PMID: 36103575; DOI: 10.2196/38879
15. Roszik, J., Jack Lee, J., Wu, Y.-H., Liu, X., Kawakami, M., Kurie, J. M., **Belouali, A.**, Boca, S. M., Gupta, S., Beckman, R. A., Madhavan, S., & Dmitrovsky, E. (2022). Real-world studies link NSAID use to improved overall lung cancer survival. *Cancer Research Communications*, 2(7), 590-601. PMID: 35832288; DOI: 10.1158/2767-9764.CRC-22-0179
16. Sayah, A., Bencheqroun, C., Bhuvaneshwar, K., **Belouali, A.**, Bakas, S., Sako, C., Davatzikos, C., Alaoui, A., Madhavan, S., & Gusev, Y. (2022). Enhancing the REMBRANDT MRI collection with expert segmentation labels and quantitative radiomic features. *Nature Scientific Data*, 9(1), 338. PMID: 35701399; DOI: 10.1038/s41597-022-01415-1
17. **Belouali, A.**, Gupta, S., Sourirajan, V., Yu, J., Allen, N., Alaoui, A., Dutton, M. A., & Reinhard, M. J. (2021). Acoustic and language analysis of speech for suicidal ideation among US veterans. *BioData Mining*, 14(1), 11. PMID: 33531048; DOI: 10.1186/s13040-021-00245-y
18. Zhang, D., Shah, N. J., Cook, M., Blackburn, M., Serzan, M. T., Advani, S., Potosky, A. L., Madhavan, S., **Belouali, A.**, Atkins, M. B., & Braithwaite, R. S. (2021). Association between body mass index and immune-related adverse events (irAEs) among advanced-stage cancer patients receiving immune checkpoint inhibitors: A pan-cancer analysis. *Cancers*, 13(24), 6109. PMID: 36139703; DOI: 10.3390/cancers14184525
19. Gupta, S., **Belouali, A.**, Shah, N. J., Atkins, M. B., & Madhavan, S. (2021). Automated identification of patients with immune-related adverse events from clinical notes using word embedding and machine learning. *JCO Clinical Cancer Informatics*, 5, 541-549. PMID: 33989017; DOI: 10.1200/CCI.20.00109
20. Shah, N. J., Al-Shbool, G., Blackburn, M., Cook, M., **Belouali, A.**, Liu, S. V., Madhavan, S., He, A. R., Atkins, M. B., Gibney, G. T., & Kim, C. (2019). Safety and efficacy of immune checkpoint inhibitors (ICIs) in cancer patients with HIV, hepatitis B, or hepatitis C viral infection. *Journal for ImmunoTherapy of Cancer*, 7(1), 353. PMID: 31847881; DOI: 10.1186/s40425-019-0771-1
21. Krupnick, J. L., Green, B. L., Amdur, R., Alaoui, A., **Belouali, A.**, Roberge, E., Cueva, D., Roberts, M., Melnikoff, E., & Dutton, M. A. (2017). An Internet-based writing intervention for PTSD in veterans: A feasibility and pilot effectiveness trial. *Psychological Trauma*, 9(4), 461-470. PMID: 27607767; DOI: 10.1037/tra0000176

- Bhuvaneshwar, K., **Belouali, A.**, Singh, V., Johnson, S. O., Rajapakshe, A., Kalakota, N. R., Alexander, S., Gusev, Y., Sundar, S. K., Riggins, R. B., Clarke, R., Weiner, L. M., Simon, R., & Madhavan, S. (2016). G-DOC Plus—an integrative bioinformatics platform for precision medicine. *BMC Bioinformatics*, 17, 193. PMID: 27130330; DOI: 10.1186/s12859-016-1010-0

Under Review/In Preparation

- Kitchen, C., **Belouali, A.**, Zirikly, A., Nestadt, P., Wilcox, H. C., & Kharrazi, H. Geospatial suicide risk prediction in the State of Maryland and the limits of discernible intent. *BMC Public Health*. [Under review]
- Belouali, A.**, Kitchen, C., Haroz, E., Lehmann, H., Nestadt, P., Wilcox, H. C., & Kharrazi, H. Identification of temporal condition patterns associated with suicide from claims data using sequence pattern mining. *JAMA Network Open*. [Under review]
- Zhu, X., Wood, K., Ahrens, R., **Belouali, A.**, Batorsky, B., & Wilcox, H. C. (2026). Digital Detection Meets Crisis Intervention: A national county-level study of GoGuardian Beacon implementation and sustainment on youth suicide rates. [Under review]
- Kitchen, C., **Belouali, A.**, Nestadt, P. S., Wilcox, H. C., & Kharrazi, H. (2025). Considerations for evaluating the practical utility of machine learning in suicide risk estimation: The role of cost and equity. *Research Square* [Preprint]. PMID: 41502566; DOI: 10.21203/rs.3.rs-8216032/v1.

BOOK CHAPTERS

- Belouali, S., **Belouali, A.**, Saber, M., Jaafar, K., & Belkasmi, M. G. (2020). Ethics of AI or Ethical AI, Topical Point of View. In *Advances in Smart Technologies Applications and Case Studies* (pp. 535-540). Springer International Publishing.



PRESENTATIONS AT SCIENTIFIC MEETINGS

Conference Abstracts and Panels (peer-reviewed)

- Belouali, A.**, Kitchen, C., Haroz, E., Lehmann, H., Nestadt, P., Wilcox, H. C., & Kharrazi, H. Identification of temporal condition patterns associated with suicide death using sequence mining and claims data. AMIA Annual Symposium, 2025; Atlanta, GA. (Presenter)
- Belouali, A.**, Kitchen, C., Zirikly, A., Nestadt, P., Wilcox, H. C., Kharrazi, H. Identifying and characterizing suicide decedent subtypes using deep embedded clustering. AMIA Annual Symposium, 2024; San Francisco, CA.
- Belouali, A.**, Kitchen, C., Zirikly, A., Nestadt, P., Wilcox, H. C., Kharrazi, H. Identifying and characterizing suicide decedent subtypes using deep embedded clustering. International Summit on Suicide Research, 2023; Barcelona, Spain.
- Belouali, A.**, Kharrazi, H. Identification of suicide decedent subtypes using cluster analysis techniques. NLM T15 Training Conference, 2023; Stanford, CA.
- Belouali, A.**, Bai, H., Raja, K., Kharrazi, H. Impact of social determinants of health on improving the LACE index for 30-day unplanned readmission prediction. AMIA Annual Symposium, 2022; Washington, DC.
- Zhang, Y., Gupta, S., **Belouali, A.**, Lev-Ari, S., Shah, N., Krishnamurthy, K., Serzan, M., et al. Prediction of Best Response for NSCLC Patients Receiving Immunotherapy by Machine Learning Models - Regular and Young Investigator Award Abstracts. BMJ Publishing Group Ltd, 2022. DOI: 10.1136/jitc-2022-sitc2022.1303
- Gupta, S., **Belouali, A.**, Shah, N. J., Atkins, M., & Madhavan, S. Automated identification of patients with immune-related adverse events from clinical notes using machine learning. AMIA Podium Abstract, 2020.

Invited Talks (not peer-reviewed)

- Belouali, A.**, Alaoui, A., Madhavan, S. Data Science to bring research and care together. CCAF panel session: Data Mining Tools, Techniques, and Integration. CCAF/CCAF-IT, 2018; Portland, Oregon.

Selected Conference Posters (peer-reviewed)

- Belouali, A.**, Kitchen, C., Haroz, E., Lehmann, H., Nestadt, P., Wilcox, H. C., & Kharrazi, H. (2025). Uncovering temporal condition patterns associated with suicide death using sequence patterns mining and claims data. International Summit on Suicide Research (AFSP & IASR), 2025; Boston, MA.
- Belouali, A.**, Kharrazi, H. Identification of temporal condition patterns associated with suicide death using sequence mining and claims data. Proceedings of the Academy Health Annual Research Meeting. 2025; Academy Health.

11. Zirikly, A., Kitchen, C., **Belouali, A.**, Wilcox, H. C., Nestadt, P., Kharrazi, H. NLP-based suicide death prediction models and how they perform in Black and white populations. International Summit on Suicide Research. 2023; Barcelona, Spain: AFSP & IASR.
12. Kitchen, C., Wilcox, H. C., **Belouali, A.**, Zirikly, A., Nestadt, P., Kharrazi, H. Geospatial suicide risk prediction within the state of Maryland. International Summit on Suicide Research. 2023; Barcelona, Spain: AFSP & IASR.
13. Shah, N. J., Al-shbool, G., Blackburn, M., Cook, M., **Belouali, A.**, et al. (2019). Safety and efficacy of immune checkpoint inhibitors (ICIs) in patients with HIV, hepatitis B, or hepatitis C viral infections. AACR 2019
14. Shah, N. J., Blackburn, M., Cook, M., **Belouali, A.**, et al. (2019). Real-world outcomes of underrepresented patient populations treated with immune checkpoint inhibitors (ICIs) - African Americans, poor ECOG performance status, and viral infections. ASCO 2019
15. Shah, N., Puthiamadathil, J., Serzan, M. T., **Belouali, A.**, ..., & Atkins, M. B. (2018). Clinical outcome of immune-related hepatitis (IrHep) in patients with advanced melanoma (AM) treated with single-agent or combination immune checkpoint inhibitors (ICI). Annals of Oncology, 29(suppl_8), mdy288.093
16. **Belouali, A.**, Shah, N., Rao, S., Zhu, X., Gibney, G., Madhavan, S., & Atkins, M. (2018). A centralized comprehensive immunology repository to enable outcomes and medication research. Big Data in Medicine Symposium 2018
17. **Belouali, A.**, Yu, J., Alaoui, A., Allen, N., Zajdel, A., Madhavan, S., Dutton, M. A., & Reinhard, M. (2018). A machine learning approach to detect suicide ideation in veterans based on acoustic and semantic analysis of speech. Technology in Psychiatry Summit 2018
18. **Belouali, A.**, Alaoui, A., Allen, N., Zajdel, A., Crock, L., Sullivan, P., Dutton, M. A., & Reinhard, M. (2017). Mobile app to support patient quality of life for veterans with GW illness symptoms. Biomedical Informatics Symposium 2017



STUDENT AND INTERN MENTORING

Mentee: Jonah Sens - **Program:** Georgetown University School of Medicine - 07/20 – 12/20

Outcome: MD research rotation, Time to Treatment Failure in stage IV melanoma patients treated with Pembrolizumab and nivolumab with and without indicated metastases.

Mentee: Vaibhav Sourirajan - **Program:** High school - 07/20 – 08/20

Outcome: AMIA 2020 High School Scholar poster presentation. Worked on applying word embeddings on transcribed interviews to detect suicidal ideation in veterans.

Mentee: Jiawei Yu - **Program:** MS in Data Science and Data Analytics, Georgetown University - 01/18 – 05/19

Outcome: Built An Android App for a clinical trial to examine the effectiveness of a telehealth mental and physical (MAP) training intervention intended to augment several factors related to brain health.

Mentee Xintong Zhao - **Program:** Master of Science in Data Science and Analytics, Georgetown University - 01/18 – 05/19

Outcome: EHR data preparation and analysis to study Metformin's effect on lung cancer incidence.

Mentee: Zhibin Huang - **Program:** Master of Science in Biostatistics, Georgetown University - 01/18 – 05/18

Outcome: Exploration of predictors of immune-related adverse events in patients treated with Immune Checkpoint Inhibitors.

Mentee: Xiaodan Zhu - **Program:** MS in Biostatistics, Georgetown University - 07/17 – 12/17

Outcome: Worked on the harmonization and visualization of data from an immuno-oncology registry.



ADDITIONAL INFORMATION

- References available upon request
- ORCID profile <https://orcid.org/0000-0002-2780-2500>
- LinkedIn profile <https://www.linkedin.com/in/anas-belouali-26713217/>
- Google Scholar <https://scholar.google.com/citations?user=Gg2tg6UAAAAJ&hl>
- PubMed <https://www.ncbi.nlm.nih.gov/myncbi/1Z1FkwtncuAx/bibliography/public/>