

Devang Thakkar

www.devangthakkar.com

Email : devang.thakkar@duke.edu

GitHub: github.com/devangthakkar

EDUCATION

- **Duke University** Durham, NC
PhD in Computational Biology and Bioinformatics
Aug 2018 - Present
 - Fifth year PhD candidate in the Dave Lab studying the landscape of alterations in lymphomas
- **CentraleSupélec** Paris, France
Échange Académique Ingénieur (Semester Exchange Program)
Aug 2016 - Jan 2017
- **Indian Institute of Technology Bombay** Mumbai, India
Bachelor and Master of Technology in Mechanical Engineering, Minor in Biosciences
Jul 2013 - Jul 2018
 - Thesis: A Study on the Application of Multi-Agent Systems for Managing Reverse Supply Chain Networks

INDUSTRY EXPERIENCE

- **Adaptive Biotechnologies** Seattle, WA
Computational Biology Intern
May 2022 - August 2022
 - Developed a robust decision tree-based model that accurately resolves the challenging dual alpha problem in pairSEQ®, an Adaptive T cell receptor assay that pairs the alpha and beta chains of T cell receptors (TCRs).
 - Conducted in-depth studies on the sequence and physical properties of CDR3 antigen-binding sequences in dual alpha T cell receptors to identify key features that can distinguish responsive receptors from non-responsive ones
 - Employed Rosetta to predict dual alpha T cell receptor structures and determine corresponding free energies
- **TransUnion** Mumbai, India
Data Architect Intern
May 2016 - July 2016
 - Developed pipelines for automated credit report creation on a 550M+ dataset with 50% reduction in execution time
 - Led the team for the migration of the analysis pipelines from SAS to the Hadoop ecosystem using Pig and Hive
 - Performed regression analyses using Apache Spark to identify leading parameters affecting the rate of insolvency

TECHNICAL SKILLS

- Proficient in Python and Bash with 15+ years of experience; skilled in R, SQL, GCP, Hadoop, Java, and JavaScript
- Analyzed DNA/RNA bulk and single cell data for over 5 years using tools such as Samtools, bedtools, GATK and IGV
- Skilled in data visualization/graphic design with 10+ years of experience using Adobe Illustrator, InDesign, Processing

RESEARCH PROFILE (* INDICATES EQUAL CONTRIBUTION)

PUBLICATIONS

- Kim PM, Nejati R, Lu P, **Thakkar D**, Mackrides N, Dupoux V, Nakhoda S, Baldwin DA, Pei J, Dave SS, Wang YL, Wasik MA. (2023) *Leukemic Presentation and Progressive Genomic Alterations of MCD/C5 Diffuse Large B-cell Lymphoma (DLBCL)*. Cold Spring Harbor Molecular Case Studies DOI: 10.1101/mcs.a006283
- Goodlad JR, Xiao W, Amador C, Cook JR, Happ L, **Thakkar D**, Dave SS, Dogan A, Duffield A, Nejati R, Ott G, Wasik MA, Czader M. (2023) *Phenotypic and genotypic infidelity in B-lineage neoplasms, including transdifferentiation following targeted therapy*. American Journal of Clinical Pathology DOI: 10.1093/ajcp/aqad035
- Czader M, Amador C, Cook JR, **Thakkar D**, Parker C, Dave SS, Dogan A, Duffield A, Nejati R, Ott G, Wasik MA, Xiao W, Goodlad JR. (2023) *Progression and transformation of chronic lymphocytic leukemia/small lymphocytic lymphoma and B-cell prolymphocytic leukemia*. American Journal of Clinical Pathology DOI: 10.1093/ajcp/aqad027

- Duffield A, Dogan A, Amador C, Cook JR, Czader M, Goodlad JR, Nejati R, Xiao W, Happ L, Parker C, Thacker E, **Thakkar D**, Dave SS, Wasik MA, Ott G. (2023) *Progression of follicular lymphoma and related entities*. American Journal of Clinical Pathology DOI: 10.1093/ajcp/aqad042
- Nejati R, Amador C, Czader M, Thacker E, **Thakkar D**, Dave SS, Dogan A, Duffield A, Goodlad JR, Ott G, Wasik MA, Xiao W, Cook JR. (2023) *Progression of Hodgkin lymphoma and plasma cell neoplasms*. American Journal of Clinical Pathology DOI: 10.1093/ajcp/aqad023
- Cook JR, Amador C, Czader M, Duffield A, Parker C, **Thakkar D**, Goodlad JR, Ott G, Xiao W, Dave SS, Dogan A, Wasik MA, Nejati R. (2023) *Transformations of marginal zone lymphomas and lymphoplasmacytic lymphomas*. American Journal of Clinical Pathology DOI: 10.1093/ajcp/aqad034
- Shingleton JR, Wang J, Baloh C, Dave T, Davis N, Happ L, Jadi O, Kositsky R, Li X, Love CL, Panea RI, Qin Q, Reddy A, Singhi N, Smith E, **Thakkar D**, Dave SS. (2020) *Non-Hodgkin Lymphomas: Malignancies Arising from Mature B Cells*. Leukemia and Lymphoma: Molecular & Therapeutic Insights, Cold Spring Harbor Perspectives in Medicine DOI: 10.1101/cshperspect.a034843
- Bakovic S*, **Thakkar D***, DeBenedittis P, Thomas MC, Iversen ES, Karra R. (2020) *Clonal Analysis of the Neonatal Mouse Heart using Nearest Neighbor Modeling*. Journal of Visualized Experiments DOI: 10.3791/61656
- Panea RI, Love CL, Shingleton JR, Reddy A, Bailey JA, Moormann AM, Otieno JA, Ong'echa JM, Oduor CI, Schroeder KMS, Masalu N, Chao NJ, Agajanian M, Major MB, Fedoriw Y, Richards KL, Rymkiewicz G, Miles RR, Alobeid B, Bhagat G, Flowers CR, Ondrejka SL, Hsi ED, Choi WWL, Au-Yeung RKH, Hartmann W, Lenz G, Meyerson H, Lin YY, Zhuang Y, Luftig MA, Waldrop A, Dave T, **Thakkar D**, Sahay H, Li G, Palus BC, Seshadri V, Kim SY, Gascoyne RD, Levy S, Mukhopadhyay M, Dunson DB, Dave SS. (2019) *The Whole Genome Landscape of Burkitt Lymphoma Subtypes*. Blood DOI: 10.1182/blood.2019001880

POSTERS AND PRESENTATIONS

- Xu ML, **Thakkar D***, Panse G, Yan J, Minden M, Zandi S, Naresh KN, Czader M, Love CL, Happ L, Koff JL, Jaye DL, Churnetski M, Arildsen MA, Juskevicius R, Soliman DS, Louissaint A, McKinney M, Sojitra P, Yin CC, Ondrejka SL, Tse E, SS Dave *Mutations in ASXL1 and/or TET2 Identify a Subset with Worse Outcomes in Patients with Blastic Plasmacytoid Dendritic Cell Neoplasms*. United States and Canadian Academy of Pathology (USCAP) 2023
- Chapman-Fredricks RJ, **Thakkar D***, Alderuccio JP, Naresh KN, Ondrejka SL, Hsi ED, Xu ML, Paulson N, Koff JL, Jaye DL, Cohen JB, Gang AO, Leeman-Neill RJ, Dave T, Happ L, Love CL, Zandi S, Naushad H, Mason EF, Louissaint A, Martin H, Ong CK, Pillai R, Pedersen MØ, Yin CC, Choi W, Au-Yeung RKH, Karjalainen-Lindsberg M, Chadburn A, Sarno V, McKinney M, Sojitra P, Evans AG, Behdad A, Galvez C, Cheng CL, Czader M, Yan J, Dave SS, Lossos IS. (2022) *Extranodal Marginal Zone Lymphomas Show Recurrent Mutations in DNA Repair Genes, Cancer-Associated Proliferative Signaling and NOTCH1 Signaling Pathways, Regardless of Anatomic Site*. American Society for Hematopathology (ASH) 2022
- Leeman-Neill RJ, **Thakkar D**, Ondrejka SL, Hsi ED, Chadburn A, Saldarriaga MM, Rutherford SC, McCall CM, Aljurf T, McKinney M, Koff JL, Jaye DL, Cohen JB, Soliman DS, Louissaint A, Ong CK, Cheng CL, Lee L, Behdad A, Norgaard PH, Evans AG, Goswami RS, Juskevicius R, Arildsen MA, Naresh KN, Roth CJ, Dave SS, Bhagat G. (2021) *Genomic and Transcriptional Characterization of Primary Mediastinal Large B Cell Lymphoma*. American Society of Hematopathology (ASH) 2021
- Love CL, Pillai R, Ondrejka SL, Bhagat G, Chadburn A, McKinney M, Koff JL, Soliman DS, Czader M, Louissaint A, Li S, Ong CK, Behdad A, Evans AM, Natkunam Y, Norgaard PH, Leppa S, Tse E, Chapman JR, Amador C, Fedoriw Y, Bogusz AM, Evans AG, Goswami RS, Juskevicius R, Xu ML, Naresh KN, Xiong B, Snowden A, Thurman A, Smith E, Dave T, Kositsky R, **Thakkar D**, Russell V, Roth CJ, Dave SS. (2021) *The Atlas of Blood Cancer Genomes (ABCG) Project: A Comprehensive Molecular Characterization of Leukemias and Lymphomas*. American Society of Hematopathology (ASH) 2021