Ali Owji

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PROFILE

Project Manager at Epic Systems delivering cardiology EHR implementations for healthcare organizations. Bioinformatics graduate with experience spanning healthcare IT, clinical research, and environmental data science.

PROFESSIONAL EXPERIENCE

Epic Systems, *Project Manager* Feb 2025 – Present | Verona, WI

- Manage multiple multi-million dollar projects for different health organizations by delivering on expectations set by customers.
- Coordinate integrated testing cycles for Philips Aura cardiac monitor integration, ensuring seamless data flow between monitoring devices and Epic's Cupid module
- Lead go-live planning activities including cutover strategy, end-user training coordination, and production support readiness for cardiology implementations
- Facilitate requirements gathering sessions with cardiologists and clinical staff to translate clinical workflows into technical system specifications
- implement operational workflows within Epic's Cupid cardiology module to optimize clinical efficiency
- Design tailored workflows and tools aligned with organizational clinical practices and end-user needs
- Delivered strategic roadmaps, operational updates, and system demos to stakeholders to ensure cross-team alignment and customer success.
- Defined content strategies for targeted verticals, aligned AI output with clinician partnerships

Georgetown University, *Bioinformatics Scientist at Suter Lab* Oct 2024 – Present | Washington, DC

- Developed a multimodal pipeline integrating molecular fingerprints (Morgan, 4096-bit) with LINCS L1000 gene expression profiles (~27,000 compounds, 937 genes) using Integrated Similarity Metrics (ISM) to uncover novel drug repurposing opportunities
- Identified 116 high-priority cross-therapeutic drug repurposing candidates by scoring structural dissimilarity against gene expression similarity, revealing mechanistically convergent compounds across unrelated disease areas
- Designed missingness-aware preprocessing pipelines for high-dimensional gene expression data, filtering >80% missing features prior to imputation to preserve model discriminative power
- Built a dual-direction Structure-Activity Relationship (SAR) pipeline using separate ISM models for gene inducers vs. suppressors to identify molecular substructures driving opposing biological effects

National Institute of Health, *Data Science Intern* May 2024 – Aug 2024 | Bethesda, MD

- Engineered 110 features for vascular stiffness estimation from SPG waveforms, significantly improving prediction accuracy compared to baseline methods
- Developed heartbeat segmentation algorithm that processed patient waveforms, establishing foundation for standardized feature extraction across dataset
- Analyzed feature correlations with pulse wave velocity using linear regression to identify strongest predictors of vascular stiffness, leading to selection of optimal biomarker

EDUCATION

Georgetown University Jan 2024 – Jan 2025 | Washington, DC
M.S. in Bioinformatics, 4.0 GPA

University of Florida Jul 2019 – May 2023 | Gainesville, FL
B.S. in Microbiology & Cell Science, 3.5 GPA
Minor in Bioinformatics

SKILLS

Project Mangement: Epic: Cupid, Cogito, Bridges certifications | HL7 integration, EHR implementation, clinical workflow optimization

Programming & Data Analysis: Python, R Programming, STATA

PROJECTS

Arctic Sea Surface Height Prediction Using Deep Learning and Satellite Altimetry Sep 2024 – Dec 2024

- Developed machine learning pipeline to analyze 70 months of ICESat-2 satellite altimetry data (448×304 grid) covering Arctic Ocean sea surface height anomalies from 2018-2024
- Implemented U-Net CNN architecture achieving 16cm spatial prediction accuracy for sea surface height patterns across polar regions, demonstrating 2x improvement over traditional Random Forest baseline
- Designed LSTM autoencoder for temporal pattern analysis, identifying 5 distinct oceanographic modes explaining 39.9% of variance in Arctic sea surface dynamics with rapid 2-epoch convergence
- Engineered geospatial features including distance from pole, land proximity metrics, and seasonal components using sine/cosine transformations to enhance model performance
- Processed and cleaned large-scale satellite datasets using Python, TensorFlow, and h5py, implementing spatial interpolation techniques to handle missing data points in polar oceanographic measurements

PUBLICATIONS

Time-off-pick Assay to Measure Caenorhabditis elegans Motility, *bio-protocol* Jun 2022

Bacteria-Derived Protein Aggregates Contribute to the Disruption of Host Proteostasis, *MDPI* Apr 2022