Josh D Lane

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EDUCATION

Wesleyan University, Middletown, CT
Bachelor of Arts, **GPA:** 3.67/4.00
Major: Molecular Biology and Biochemistry; **Certificate:** Integrative Genomic Sciences
Awards: *Scott Biomedical Prize 2019*, *CSA Scholar Athlete Award 2019, NESCAC All-Academic Honors 2017*

EXPERIENCE

Data Scientist, **CKM Analytix,** New York, NY Sept 2019 – Present

- Developed a set of analyses in Python to describe queue management efficiency in a service desk environment
- Modeled a multi-level service desk as a discrete-event simulation in python to study the effect of different queue management styles on various KPIs
    - Created an optimized queue management algorithm flexible to clients' priorities based on research via these simulations
- Productionized simulation to ingest historical audit logs and calculate opportunity cost against our optimized queue management algorithm
- Led and executed the effort to build our queueing analytics module into a web application using Django, JavaScript, Ajax, and D3
- Worked on R&D projects directly with Chief Innovation Officer and presented proposals to CEO and Product Owner
- Regularly led stakeholder meetings on project status and collected feedback on new features
- Joined internal Machine Learning team to understand how to leverage ML and NLP for future projects

Research Assistant, **New York Genome Center,** New York, NY Jun 2018 – May 2019
Center for Genomics of Neurodegenerative Disease

- Developed a high-throughput platform for characterizing the length of the C9orf72 hexanucleotide repeat expansion associated with ALS and FTD via Next Generation Sequencing
- Utilized CRISPR/Cas9-Assisted Targeting of Chromosome segments (CATCH) for enrichment of the C9 loci
- Prepared libraries for and conduct Oxford Nanopore Sequencing (ONT)
- Developed novel computational approaches in R to determine repeat expansion length from raw sequencing data
- Internship was extended following promising results

PEER-REVIEWED PUBLICATIONS

Lanno SM, **Lane J**, et al. (2017). Transcriptomic Analysis of Octanoic Acid Response in Drosophila Sechellia Using RNA-Sequencing. *G3 7(12)3867-3873.*

PROJECTS

Poe – Audio Poems

- Built React-Native app that asks a user what's on their mind and delivers a relevant playlist of audio poems
- Created a REST API using AWS which handles the recommendations by utilizing a lightweight version of the Universal Sentence Encoder to help measure similarity between the poems and the user's input
- Available on the Apple App Store and Google Play Store

NYS Covid-19 Testing Watch

- Utilized an API from the New York State Department of Health to create a mobile dashboard that provides accessible and up to date testing data on the county level
- Built in React Native and utilized D3 to create interactive visualizations from the data

TECHNICAL SKILLS

Python, JavaScript, SQL, React.js, React Native, D3, R Programming, Pandas, Django, node.js, Jupyter Notebooks, Jira, Git, Netlify, Buddy Works, AWS (Lambda, S3, DynamoDB), Serverless, Microsoft Excel & VBA, Microsoft PowerPoint