Constin Liu

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I'm graduating with a B.S. in computational biology and a second major in computer science. My past work includes relevant experience in genomic analysis, data science, and data visualization. My objective is to find employment that uses my skill sets to further sharpen my analytical acumen and gain industry exposure.

Skills + Certificates

- Data engineering and EDA with Python + SQL + RStudio
- Data viz with Looker Studio + Excel
- ML and DL models with Python
- Database management with Access + Microsoft SQL
- Git, Jira Agile Project Management
- Google Data Analytics Professional Certificate (July 2023)
- IBM Machine Learning Professional Certificate (In Progress)

Education

Washington University in St Louis (WUSTL)
- B.S. in Computational Biology + Second Major in Computer Science, May 2024
- Dean's List (Fall 2020-Present), GPA: 3.85/4.0

Work Experience

Data Analytics Intern, ElectMe   May 2023-Aug 2023
- Data analysis and visualizations on political campaign and lobbying finance reports
- Presented findings to inform company market strategy and software architecture
- Completed two independent projects studying political news coverage and financial trends in municipal and local elections

Undergraduate Research Assistant, S. Ding Lab at WUSTL   Sep 2021-Present
- Collected data for rotavirus reverse genetics workflows, such as: scRNA-seq, (qRT/RT)PCR, cell subcloning, plasmid mutagenesis, Western blots, FFU assays
- Created data visualizations using genetic data and statistical analysis for lab manuscripts

Level II Technician and Trainer, Student Technology Services at WUSTL   Mar 2021-Present
- Provide software troubleshooting and hardware repair services to WUSTL undergraduates
- Train new employees on scope of service and customer support
- Plan and execute service expansions, such as Dell Technician Certifications

Teaching Assistant for Data Science on Complex Networks, WUSTL   Dec 2023-Present
Project Manager + **Software Developer**, DevSTAC @ WUSTL   Oct 2021-May 2023
QA Engineer, HSTPathways   Jun 2019-Jan 2021

Recent Projects

Predicting Disease Transmission with PageRank
- Used small-world graph models with communities to mimic real population networks
- Performed network centrality analysis and PageRank to identify "super-spreaders"
- Visualized large graphs using Python and Gephi

Maximum Likelihood Estimation (MLE) Phylogenetic Analysis
- EDA on NCBI + GenBank databases for the SAMD9/SAMD9L gene family
- Conducted sequence alignment and homology analysis on large-scale dataset