

LEON ZONG

Junior @ University of Rochester
Computer Science & Bioinformatics

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📧 see website

📍 NY, United States

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SUMMARY

Aspiring computer scientist and computational biologist, with excellent problem solving and teamwork abilities. Looking to apply myself as an applied computer or data scientist in the life sciences.

SKILLS

Languages: Python, R, Go, JavaScript, Java, C++, C, VBA, Bash

Tech: Git, PyTorch, NLP, Data Processing, Node, GCP/AWS, Excel, ADA ELISA, LC/MS, extraction, samtools, BLAST

EXPERIENCE

3/2023 – CUR

Research Assistant

FACTS Lab @ University of Rochester

- Perform web scraping of large web databases in Python to generate isiZulu corpora
- Data cleanup and preprocessing for NLP tasks
- Large language model development (BERT, GPT) for masked language modeling and predicate generation
- Design of web frontend for lab researchers to use trained models in the field

Python - PyTorch & HuggingFace / HTML & JavaScript

5/2023 – 8/2023

Laboratory Technician 1

ICON Plc

- Developed GLP-validated Hamilton Liquid Handler protocols for lab tasks
- Created libraries for future usage of integrated sample decappers, sample barcode readers in the lab workflow
- Worked with Project Managers on creation of a tool for streamlining report generation
- Worked with scientists to create a tool to validate plate layouts
- Created a JavaScript-based curve weighting regression solver tool for analyzing heteroskedasticity

HSL / VBA / JavaScript

5/2022 – 8/2022

Intern

ICON Plc

- Set up, program and test several automated liquid handlers
- Created an Excel worksheet and VBA script to automatically import dilution schema
- Optimized and qualified settings for automated pipetting
- Learned Hamilton Scripting Language to take full advantage of the logic and data processing capabilities of the robots

HSL / VBA

PROJECTS

Data Visualization

University Class Visualizer

github.com/zongleon/classgraph

Project for visualizing relationships between classes offered at my university. Used Python for data cleanup, preparation, and graph creation, Tensorflow LM to determine class relationships, and sigma.js and React for web app.

Telemetry

Solar Splash Telemetry

currently private

Rewrite of electric boat telemetry server, information displays in Go. Consolidation of serial information from sensors, motors, and GPS to be displayed concisely for driver and for post-race data analysis.

AI/ML

GDSC Music Generation

ur-gdsc-music.github.io

Utilize Python and magenta to create mood-based AI-generated music. Created the backend in Flask and trained the model.

EDUCATION

9/2021 - 5/2025

Computer Science & Computational Biology

University of Rochester

Full time student at the University of Rochester with a 3.99 GPA. Active in professional groups and in the arts. Selected completed and current coursework follows:

- Natural Language Processing
- Computation and Formal Systems
- Data Structures and Algorithms
- Machine Learning
- Applied Statistics
- Applied Genomics
- Computational Biology
- Data Mining
- Principles of Biochemistry
- Principles of Genetics