AINSLEY LAI

Applied Mathematics & Informatics Undergraduate

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EXPERIENCE

Configuration Management Specialist
National Aeronautics and Space Administration (NASA)

August 2023 – Present Greenbelt, MD

- Collaborated with the Goddard Space Flight Center via Alcyon Technical Services
- Assisted in data analysis for the Technical Development Program

Undergraduate Research Assistant
UW Ocean Data Lab

January 2023 – Present Seattle, WA

- Assisted Professor Shima Abadi in ship noise classification project
- Conducted cepstral frequency analysis and created informative plots using Python to study acoustic data

Undergraduate Research Intern
Institute for Systems Biology

June 2022 – August 2022 Seattle, WA

- Worked under the Hadlock lab via the NSF REU Program
- Conducted data processing via PCA, data smoothing using a signal processing filter, and interpolation on a longitudinal dataset using Google Cloud Compute
- Used symbolic and sparse regression to build equation models and investigate effects of noise in data analysis and machine learning on biological systems

NRFU Enumerator
U.S. Census Bureau

July 2020 – Sept 2020 Tacoma, WA

- Aided the 2020 decennial census Non-Response Follow-Up operation by assisting in federal population data collection

PROJECTS

Modeling Caspase-Initiated Apoptosis

- Extension of a dynamic mathematical model to study bistability in apoptosis.

Survey of Laser Models

- Academic review paper that explores three different equation models for lasers.
- Link: Here

U.S. Gun Violence Visualization

- A collaborative data visualization of American gun violence using R-Shiny and tidyverse.
- Website: https://ainslai.shinyapps.io/info201-af3-groupfinal/

EDUCATION

B.S. in Applied Mathematics
University of Washington

Sept 2020 – June 2024

Minor in Informatics
GPA – 3.92

AAS-DTA, Associate's in Arts & Sciences
Bellevue College

Sept 2018 – June 2020

GPA – 3.92

STRENGTHS

Hard-working Analytical
Problem Solving Detail-Oriented
Eager to learn Team-oriented

SKILLS

Google Suite Microsoft Office R
SQL MATLAB Python Java
Git/Github HTML CSS bash
LaTeX C/C++ Azure

ACHIEVEMENTS

- Consecutive Dean's List
- Graduated Bellevue College with High Distinction

INTERESTS

- Computational mathematics & numerical modeling
- Data science and analysis
- Data and Signal processing

COURSEWORK

AMATH 422 – Computational Modeling of Bio. Systems

AMATH 481 – Scientific Computing

CSE 373 – Data Structures and Algorithms

CSE 414 – Intro to Database Systems

CSE 416 – Intro to Machine Learning