# AINSLEY LAI

### **Applied Mathematics & Informatics Undergraduate**

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Renton, WA

### **EXPERIENCE**

### Undergraduate Research Intern

#### **Institute for Systems Biology**

- Working under the Hadlock lab as part of the Summer Undergraduate Research Experiences Program
- Conducted principal component analysis (PCA) with sklearn and pandas on a longitudinal dataset using Google Cloud Compute Engine
- Used pySINDy (symbolic and sparse regression) to build equation models and investigate effects of noise in data analysis and machine learning

#### Cashier

#### **Albertsons**

Operated POS system and provided customer service

#### NRFU Enumerator

#### U.S. Census Bureau

m July 2020 - Sept 2020

▼ Tacoma, WA

- Worked with the U.S. Census Bureau to aid the 2020 decennial census Non-Response Follow-Up operation
- Assisted in federal population data acquisition

## **PROJECTS**

#### 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/

## **RELEVANT COURSEWORK**

#### CSE 142/3 - Computer Programming I-II

 Procedural programming, control sequence, objects, and data abstraction/encapsulation using Java

#### CSE 373 - Data Structures and Algorithms

• Lists, stacks, trees, queues, directed graphs, search/sort

### **AMATH 301 - Beginning Scientific Computing**

 Python for visualization and numerical programming of linear algebra and differential equations using Numpy, Scipy, and Matplotlib

### **EDUCATION**

B.S., Applied Mathematics & Informatics

#### **University of Washington**

## Sept 2020 - June 2024

Double degree 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

MATLAB Python Java Git/Github

HTML CSS Shell Scripting LaTeX

## **ACHIEVEMENTS**

- · Consecutive Dean's List
- Graduated Bellevue College with High Distinction
- Graduated top 7% of high school class

## INTERESTS

#### **Technical**

- Interest in computational mathematics.
- Data analysis
- Scientific computing
- Mathematical modeling

#### **Extracurriculars**

- Applied Analytics Club
- Table Tennis