SEULCHAN HAN

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EDUCATION

B.S. Computer Engineering
B.A. Applied Computational Math and Sciences

University of Washington — **GPA: 3.99**

Sept 2020 - Present — Seattle, WA

EXPERIENCE

Academic Tutor

University of Washington (CLUE)

June 2021 - Present — Seattle, WA

- Scheduled and led one-to-one tutoring appointments with students on a variety of topics (particularly math and physics)
- Developed graphical resources used by CLUE (the tutoring organization) to assist students in tutoring sessions
- Prepared and led monthly inter-organizational meetings with team members

Undergraduate Teaching Assistant

University of Washington

Sept 2021 - Present — Seattle, WA

- Assisted PHYS 114: "Mechanics and General Physics" for two quarters.
- Prepared and led exam reviews and lectures in physics topics to 50+ students.
- Prepared and led "advanced topics" sessions, on material not typically seen in the course.

CS Teaching Assistant

Gateways Summer School

June - August 2020 — San Diego, CA

- Assisted course in introductory programming in Java for 7-10 grade students
- Designed and implemented a pipeline using Bash scripts to autograde programming assignments
- Held sessions to assist students in debugging assignments and learning core concepts

LANGUAGES

Java | Python | C/C++ | Javascript

COURSEWORK

Computer Science

Data Structures and Algorithms
Parallelism and Concurrency
Software Design and Implementation
Systems Programming
Database Management

Mathematics and Statistics

Probability and Applied Statistics
Linear Algebra
Combinatorial Theory
Stochastic Processes
Numerical Analysis
Multivariate Calculus

PROJECTS

UW Map Application:

- Developed an application to navigate UW between arbitrary locations.
- Application determines efficient routes using various pathfinding algorithms (such as A*, Dijkstra's)
- Main server application written in Java using the Spark framework, with a browser GUI implemented using React/Typescript.

Spam Filter Application:

- Developed an application to identify and filter out spam email messages
- Using an initial training set of spam/non-spam emails, the application determines how to filter emails for spam using probabilistic classifiers such as Naive Bayes
- Main application written in Python using numpy/statistics libraries

Text Prediction Application:

- Developed an application to suggest words for completing series of text (as in a text messaging application)
- Using an initial training set of text files, the application determines what words will come next in a sentence using Markov n-gram modeling
- Main application written in Java with the GUI written using Swing libraries