# WOO SEOK JUNG

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#### **EDUCATION**

#### University of Puget Sound, Tacoma, WA

August 2016 - May 2020

B.S. in Mathematics & Computer Science

GPA: 3.79

Relevant courses: Mathematical Statistics, Advanced Applied Statistics, Probability Theory, Mathematical Modeling, Optimization, Algorithms and Data Structures, Software Engineering, Operating Systems, Database Management Systems

# DIS (study abroad), Copenhagen, Denmark

Fall 2019

Relevant courses: Artificial Neural Networks and Deep Learning, Artificial Intelligence, Computational Analysis of Big Data

#### RESEARCH EXPERIENCE

## McCormick Summer Research Scholar

Summer 2019

University of Puget Sound

Tacoma, WA

- · Applied a complex Morlet wavelet transform to raw mouse vocalization recordings to produce visual representations in the form of scalograms.
- · Took and downscaled 1-second slices of visible mouse calls.
- · Implemented a generative adversarial network model trained using NVIDIA's progressive training methodology and produced promising results for  $16 \times 32$  and  $32 \times 64$  resolution scalogram slices.
- · Assisted professors as a TA, grader, and afternoon tutor for Introduction to Computer Science, Data Structures, and Architectures courses.

## WORK EXPERIENCE

# Computer Science Assistant

2018 - 2019

University of Puget Sound

Tacoma, WA

· Assisted professors as a TA, grader, and afternoon tutor for Introduction to Computer Science, Data Structures, and Architectures courses.

## **Mathematics Assistant**

2017 - 2019

University of Puget Sound

Tacoma, WA

- · Assisted professors as a grader for Introduction to Applied Statistics and Calculus I & II courses.
- · Worked as an afternoon tutor for Linear Algebra, Multivariate Calculus, and Applied Statistics courses.

#### IT Intern

June – August 2018

First Choice Bancorp

Cerritos, CA

- · Designed and programmed scripts for Windows AD group policies as part of merger and acquisition process.
- · Assisted in migrating mail servers and transitioning mobile device management platforms for over 300 users and user groups as part of the m&a.

<sup>&</sup>quot;Generating Artificial Mouse Ultrasonic Vocalizations using Generative Adversarial Networks"

# Research and Development Intern

NOVAtime Technology Inc.

May – July 2015 Diamond Bar, CA

- · Developed a JavaScript visualization of a time clock for a simpler hierarchical overview.
- · Researched and developed Korean language localization for the time clock interface.
- · Presented the projects before the company's Board of Directors and Executives.

## **PROJECTS**

 $\begin{array}{c} \textbf{Loggregate} \\ \textit{github.com/wsjung/loggregate} \end{array}$ 

Scrum master, DBA

- · Led a team of four in developing a study group management platform implemented using the Laravel PHP web framework.
- · Defined a BCNF optimized SQLite database schema and populated it using a Python script which collected course information from the web

# Quantitative Investment Analysis

Fall 2018

Fall 2018

github.com/wsjung/cs240

Data collector, DBA

- · Scraped stock and Twitter data from the web using Python's BeautifulSoup package.
- · Designed a script to automatically collect daily stock and Twitter data using cron
- $\cdot$  Stored collected data in a BCNF optimized MySQL database.

## EXTRACURRICULAR UNIVERSITY SERVICE

Chair, University of Puget Sound ACM Student Chapter	2017 - 2019
Secretary, University of Puget Sound Mathematics Club	2017-2018
Webmaster, University of Puget Sound ACM Student Chapter	2016 - 2017

#### AWARDS AND HONORS

McCormick Scholar Award	2019
Dean's List	Spring 2019, Fall 2018, Fall 2017

#### **SKILLS**

Computer Languages	Java, Python, R, C, MATLAB, JavaScript, PHP
Libraries	TensorFlow, PyTorch, Git, Flask, Laravel, Nodejs
Databases	MySQL, SQLite

#### **AFFILIATIONS**

Association for Computing Machinery Upsilon Pi Epsilon Honor Society

#### REFERENCES

Available on request