

# WOO SEOK JUNG

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## EDUCATION

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**University of Puget Sound**, Tacoma, WA  
B.S. in Mathematics & Computer Science  
GPA: 3.79

*August 2016 – May 2020*

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

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**McCormick Summer Research Scholar**

Summer 2019

*University of Puget Sound*

*Tacoma, WA*

*“Generating Artificial Mouse Ultrasonic Vocalizations using Generative Adversarial Networks”*

- Applied a complex Morlet wavelet transform to raw mouse vocalization recordings to produce visual representations in the form of scalograms.
- 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.

## WORK EXPERIENCE

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**Computer Science Assistant**

2018 – 2019

*University of Puget Sound*

*Tacoma, WA*

- Assisted professors as a TA, grader, and afternoon tutor for Operating Systems, 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.

### 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

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### Trump Tweets Analysis

Fall 2019

*github.com/wsjung/ANNADL\_final*

- Worked in a team of four to analyze patterns in Trump's tweets (@realDonaldTrump) to predict if from Android or iPhone device.
- Designed neural network models and selected for best validation accuracy based on raw and balanced datasets using Keras and TensorFlow.

### Un-bottling the data

Fall 2019

*github.com/wsjung/caobd\_project*

- Created interactive map visualizations for visual analysis of wine features.
- Designed a LSTM network to analyze wine review descriptions to predict the associated wine's review score.

### Logggregate

Fall 2018

*github.com/wsjung/logggregate*

*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

## EXTRACURRICULAR UNIVERSITY SERVICE

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**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

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McCormick Scholar Award

2019

Thomas and Hilda Jack Scholarship

Fall 2019

McGill Family Scholarship

Fall 2018, Spring 2019

Dean's List

Spring 2019, Fall 2018, Fall 2017

## SKILLS

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<b>Computer Languages</b>	Java, Python, R, C, MATLAB, JavaScript, PHP
<b>Libraries</b>	TensorFlow, PyTorch, Numpy, Sklearn, Pandas, Git, Flask
<b>Databases</b>	SQLite

## AFFILIATIONS

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Association for Computing Machinery  
Upsilon Pi Epsilon Honor Society

## REFERENCES

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Available on request