# Weronika Matuszczak

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#### **EDUCATION**

University of Pennsylvania Master of Computer and Information Technology
University of Oregon B.A. in Business Administration: Finance, Mnr in Economics
University of San Francisco 102 credits towards Finance and Economics
GPA: 3.97 | Expected: Aug 2023
GPA: 3.85 | Mar 2020
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#### TECHNICAL SKILLS

**Languages**: Java | Python | C++ | C | JavaScript | HTML | CSS | MySQL | PostgreSQL | SQLite **Systems and Libraries:** Linux | Bokeh | Pandas | Flask | Tkinter | NumPy | Matplotlib | PyCharm **Tools**: Docker | Git | Jupyter | JUnit | Valgrind | Eclipse | Visual Studio Code | IntelliJ IDEA

#### **GRADUATE PROJECTS**

**Pacman Game - Python -** Implemented an Approximate Q-Learning agent trained using reinforced learning algorithms, which picks optimal actions and eventually wins a Pacman game.

**Language Models - Python -** Implemented Markov (n-grams) and perceptrons (neural network) based models for text prediction, recognition, and classification.

**Flu Spread Indicator Based on Tweeter Data - Java -** Developed an application that takes a database with tweets, filters the ones containing flu information, and uses their geolocation to count and map flu occurrences across the US.

**Student Management System - Java -** Designed course registration system with an authentication layer for users with various privilege assignments.

**Software Analysis Tools - C++, Python -** Using LLVM compiler infrastructure developed dynamic and static analysis tools to uncover insidious bugs, prevent security vulnerabilities, and automate testing and debugging.

**TCP Client-Server Three-Way Handshake - C -** Implemented multi- and single-threaded servers to handle concurrent client requests by monitoring multiple sockets using an event-driven approach and asynchronous I/O.

### **OTHER PROJECTS**

**Interactive Map - Python, JavaScript, HTML -** Designed a multilevel interactive map of my parents' trip to the US. The map shows visited cities and parks with a zoom-in option for further exploration of the attractions within the area. Each point is represented as a pop-up with a photo, and a link to a Wikipedia page containing details of the place.

**Face and Motion Detector - Python -** Constructed a webcam motion detector that highlights and records timestamps of the moving objects, then plots them using Bokeh and Pandas as an interactive and CSV downloadable graph.

**Data Analysis and Visualization - Python -** Extracted, filtered, and plotted data from over 45,000 records of SQL database to create easy-to-understand interactive visuals and reports.

**Web-scrapping and Website blocker - Python, HTML -** Used real estate website to extract desired features of properties within a given location to CSV file. Built a website blocker to snooze notifications for specified hours.

#### **WORK EXPERIENCE**

## University of Pennsylvania | Remote | Head Teaching Assistant

May 2022- Present

Assist Data Structures and Software Design course staff. Hold weekly office hours, 3 recitations per semester, and answer questions on the educational forum for 300 students. Since January 2023, as a head TA, oversee and mentor a group of 20 TAs, interview prospect TAs, and help with updates to course content and assignments.

## Summit Bank, | Eugene, OR | Associate Business Client Advisor

Jun 2020- Apr 2021

Performed financial analysis and economic outlook of small and medium-sized businesses in Lane County, Portland and Central Oregon. Underwrote and presented to Business Client Advisors loans with a total exposure up to \$5.6MM.

### Prologis | San Francisco, CA | Intern in Financial Planning and Analysis

Jun 2018- Aug 2018

Created a model for more accurate interest expense projection. Collected, consolidated, and interpreted data from various departments to perform ROI analysis. Used Bloomberg to update TSR and calculate treasure awards.

# HONORS AND ACHIEVEMENTS

Fluent in Polish, and advanced proficiency in Russian (B2 Level Russian Language Certificate)

Proficient in Salesforce applications (completed a four-weeks long online course offered by Salesforce)

Track & Field scholar-athlete for the University of San Francisco and the University of Oregon

3rd place at the European Cross Country Championships (2019)

2nd place as a team and 5th individually at the Division I NCAA Cross Country Championships (2018)