# **BRADEN HANNA**

# Software Engineer

**J** +1 360-250-9788

in LinkedIn

G Github

## **EDUCATION**

M.S.

Artificial Intelligence and Machine Learning

## **Colorado State University Global**

i Sep 2021 - Jun 2023

Online

**GPA: 4.0** 

B.S.

Computer Science

## **Central Washington University**

i Sep 2017 - Jun 2021

Ellensburg, WA

Minors: Mathematics, Biology

## RELEVANT COURSES

Computer Vision

Project Management for Software

Engineers

**Data Mining** 

Data Structures & Algorithms

Algorithm Analysis

Computational Statistics

**Biostatistics** 

Optimization

Linear Algebra

Advanced Software Engineering

### **SKILLS**

### Languages

Python, Java, SQL

#### **Technical Skills**

Data Cleaning, Data Analysis, Optimization, Tensorflow, Keras, Pandas, Matplotlib, Deep Learning, OpenCV, Streamlit, Tableau, Linear Regression, Software Engineering, Software Project Lifecycle, Data Structures, Algorithm Analysis, Statistics, Mathematics, Biology, Chemistry, Hypothesis Testing, Excel

### **PROJECTS**

## Face Anonymizer Web App

#### Creator

- - Implemented four different face detection methods that the user can switch between (OpenCV DNN, OpenCV Haar-Cascade, Dlib HoG, Dlib CNN).
  - Utilized Streamlit sliders to allow the user to have full control over parameters for each face detection algorithm to ensure 100% accuracy.
  - Built an algorithm that leverages a pre-trained facial landmark detector to find eyes and blur their area plus padding.
  - Allows user to download their final anonymized photo.
  - URL: https://share.streamlit.io/defqon7/eyeblur/main.py
  - Github Link: https://github.com/Defqon7/Face-Anonymizer-Web-App
  - Demo Video: https://youtu.be/UjyxuL\_9L4E

## **Customer Segmentation**

#### Creator

- □ Dec 2021
  - Cleaned and explored the data to find patterns.
  - Used k-means clustering to 3D cluster customers by age, income, and spending.
  - Github Link: https://github.com/Defqon7/Customer-Segmentation

## Cell Segmentation

#### Creator

- # Feb 2022
  - Performed cell segmentation on a human cheek cell using Laplacian of Gaussian edge detection, morphological operators, and skimage's segmentation library.
  - Github Link: https://github.com/Defgon7/Cell Segmentation

# Climate Change Predictor Variables

#### Creator

- # Feb 2021
  - Performed linear regression using monthly data from 1985-2008 with global temperature vs. 8 believed predictor variables for climate change.
  - Found that 5 out of the 8 believed predictor variables were significantly correlated with an increase in global temperature.
  - Github Link: https://github.com/Defgon7/ClimateChangePredictorVariables

## WORK EXPERIENCE

## Merchandiser

## TNG Merchandising

iii Jun 2018 - May 2020

Ellensburg, WA

## Cashier

#### CENTRAL MARKET

iii Jun 2018 - Jan 2020

Ellensburg, WA

# Merchandiser

### **RMSI**

iii Nov 2018 - May 2020

Ellensburg, WA