# Nikki Taylor

#### **EXPERIENCE**

#### Machine Learning Engineer, Headspace

November 2021 - Present

- Delivered a large language model based system for content recommendations from clinical free text data. Led project end to end including exploratory data analysis, model development, and deployment. *Patent application in progress.*
- Created abstractions for custom CI that enabled easy implementation of automated unit testing and integration testing for over 10 production microservices.
- Created a reusable module using Typescript and AWS CDK to provision infrastructure and orchestrate workflows for batch ML models that simplified the deployment process by hundreds of lines of code per model.

## Graduate Machine Learning Researcher, Stanford University Helix Group

June 2020 - June 2021

- Developed an embedding based machine learning method to classify genes associated with the pathogenesis of nonalcoholic steatohepatitis used to validate results from in vivo experiments.
- Publication: Mapping transcriptional heterogeneity and metabolic networks in fatty livers at single-cell resolution, iScience, 20 January 2023.
- Shaped and led communications of complex technical and analytic results to broad groups of stakeholders, including funders, corporate partners, and academic researchers.

# Research Assistant, Weill Cornell Mental Health Informatics Lab

Summer 2019

- Investigated recent trends in psychiatric emergency department visits using CDC survey data. Created innovative data visualizations using R.
- · Wrote abstract that was accepted for presentation at the American Psychiatric Association 2020 Meeting.

#### **EDUCATION**

### **Stanford University**

M.S. Biomedical Data Science

2020 - 2021

B.S. Human Biology - Computation and Neuroscience

2016 - 2020

Awards: Phi Beta Kappa, Joshua Lederberg Award for Academic Excellence in Human Biology

**GPA**: 4.03

**Relevant Coursework**: Computer Organization and Systems, Data Management and Systems, Design and Analysis of Algorithms, Machine Learning, Data Science for Medicine, Computational Methods for Biomedical Image Analysis and Interpretation

#### **SKILLS**

Programming - Highly Proficient: Python, Typescript, SQL, R

Programming - Familiar: React, React Native, Javascript, C++, C, C#, Unity, HTML, CSS

AWS: CDK, Lambda, CodeBuild, CodePipeline, SageMaker, Fargate, Step Functions, CloudWatch, DynamoDB

Other: Git, CI/CD, shell scripting, object oriented programming, test driven development, Docker

#### **PROJECTS**

### React Native Boba Locator App

- Created a mobile app to display a list of boba store locations within walking distance of the user's current location.
- Used Python and FastAPI to create an endpoint to serve boba store data to the frontend of the app.

### React Job Classifier Website

- Used Selenium to scrape job posting data from a public website.
- Created a React web app with a FastAPI + Python backend to allow users to input desired characteristics of jobs in free text, and rank and display the classified jobs in tabular format based on the inference output of a HuggingFace zero shot classifier.

Deep Learning Assisted Parameter Mapping for the Assessment of Stroke Lesions (Graduate Capstone)

 Built software to segment stroke location in brain images (DWI and MRP) using UNET and Convolutional Neural Networks with Keras and Tensorflow.