PORTFOLIO
tyleryep.com
github.com/tyleryep

TYLER YEP

CONTACT
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EXPERIENCE

ROBINHOOD
Jun 2020 – Sept 2020
Backend Engineer Intern

Designed a new checkout flow backend API to place trades via ACH transfer on the Robinhood app. Implemented the backend API in the Django backend and the frontend in the web app using React/Redux, then integrated with Bonfire, a unified HTTP proxy layer.

BRIDGEWATER ASSOCIATES
Jun 2019 – Aug 2019
Full-Stack Developer Intern

Developed features for DSL built on Scala used to author investment logic, on a feature that explains claims in financial reports and generates systematic reports with new data. Used React/Redux, a custom Scala backend, and a PostgreSQL database.

INTUIT
Jun 2018 – Sep 2018
Full-Stack Developer Intern

Developed an automated UI test framework for Payroll teams. Designed reliable click/input functions using XPath selectors, integrated framework with Jenkins and backend service tests, and built a dashboard app to aggregate build results using React/Node.js.

VIRTUAL REALITY LAB
Sep 2017 – Jun 2018
VR Programmer

Created VR worlds for the Virtual Human Interaction Lab to use in PhD research. Implemented a multiplayer VR full-body experience using Unity, SteamVR, and Photon. Set up online VR studies using WebVR and Django to reach more participants.

PROJECTS

SELF-DRIVING
Unity3D, PyTorch

Trained car simulator model to drive by responding to high-level controls (e.g. take the next available left turn). Used branched ResNet architecture to predict throttle and steering angle. Final model car stays in its lane, completes turns, and follows directions.

WOLFBOT AI
Python

Created AI game player for the board game: One Night Ultimate Werewolf. Game solver determines which players are lying using consistent statement subsets. Wolf AI uses Expectimax + Reinforcement Learning to choose the best lie to evade detection.

AI-TOOLKIT
PyTorch, TensorFlow 2.0

Wrote a wrapper framework for PyTorch that automates common AI/ML pipelines, such as automatically plotting loss/accuracy to Tensorboard, printing/visualizing models, and saving/restoring checkpoints. 25k downloads on PyPI, 80 stars on GitHub.

INSTAREACT
React Native App

Built a concept app using React Native and Expo that automatically scrolls through an Instagram-like feed and likes/dislikes photos for you based on your facial reaction to the photo using Google Cloud API for facial recognition. Built during LA Hacks 2018.

EDUCATION

STANFORD UNIVERSITY
Class of 2020
Computer Science B.S. + M.S.
GPA: 3.9

Relevant Coursework:
CS 161/168: Design & Analysis of Algorithms, CS 155: Computer Networking & Security,
CS 147/247: Human-Computer Interaction, CS 448B: Data Visualization,
CS 182: Ethics & Public Policy in Tech, CS 242: Programming Languages,
CS 221/224N/227B/229/230/231N: Deep Learning, CS 246: Mining Massive Datasets

SKILLS

HTML, CSS, JS
React/Redux
Node, Django

Python
PyTorch
TensorFlow

C++, Java, Scala
d3.js
Unity

HOBBIES

Fingerstyle Guitar
Running

Music Production
Design Thinking