# CHENGFEI WANG

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### **OBJECTIVES**

I am seeking 2020 Summer Intern as Software Engineer.  ${\bf EDUCATION}$ 

Sep 2010 - May 2013 Sep 2006 - May 2010
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Sep 2010 - May 2013
Aug 2014 - May 2016
May 2016 - Dec 2020

Online Grocery Search Team

- June 2019 August 2019 Sunnyvale, CA
- $\cdot$   $\,$  Built prototypes and perform experiments of shopping recommendation systems.
- · Defined solution/model to implement and deploy in production after literature search.
- · Worked with senior engineers to integrate recommendation, search and personalizing platforms.
- Presented results to the internal and external community

# **RESEARCH AND PROJECTS**

## Walmart Online Grocery Shopping Recommendation System June 2019

- · Built the **first** cooking recipe-based recommendation system in Python with **35** % precision.
- · Extracted ingredient text from **2.6 million** *Yumprint.com* recipes, mapped into Walmart item IDs.
- · Searched new items related to add-to-cart items via recipes, ranked by term frequency.
- $\cdot$  Optimized performance over **100x** using engineering tricks: stop items filter, sliding window intersection, random prune and infrequent-purchased item adjustment.

#### **Neural Networks Are Easily Fooled by Strange Poses of Familiar Objects** Dec 2018 Part of the Strike-a-Pose Paper

- · Published on top-tier AI conference CVPR 2019. (Media Coverage, arXiv, Github)
- · Revealed the vulnerability of deep neural network on robustness.

 $\cdot$  Generated thousands images of 3D objects from different viewing angles by differentiable renderer Neural 3D Mesh Renderer to fool pre-trained model Inception-v3 in PyTorch

- · Modified C++ code of *openFrameworks*, run t-SNE to visualize the distribution of 3D adversaries.
- Proved the issue still exists even augmented with adversaries on re-trained AlexNet.

# WeatherMap: Online Interactive Weather Map

Ranked 6th among 52 teams in Equifax Auburn Code-A-Thon 2018 (as a team of 4)

- Built a full-stack hyperlocal webapp on web framework R Shiny. (Demo, Slides, Github)
- Implemented the front-end of the WeatherMap application using JavaScript package leaflet.
- · Cached response from restful API (*darksky*) to reduce QPS.

# HONORS AND SKILLS

- · Two-time Graduate Scholarship winner (Auburn Univ., 2017; Southern Methodist Univ., 2014)
- · Ranked 461/6701(6.88%) in HackerRank/Morgan Stanly Campus Code-A-Thon 2017 (Online)
- · Ranked 6/52(semi-finalists) in Equifax Auburn Code-A-Thon 2018
- · Programming Languages: **Python**(major), **Java**, C++, R, Mathematica,  $\square T_EX$
- $\cdot~$  Human Languages: Chinese Mandarin (native), English (fluent)

Feb 2018