# K. DORUK KARINCA

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## **EDUCATION**

## University of California, Los Angeles (UCLA)

M.S. in Computer Science

3.92/4.0 GPA, Expected Jun 2021

B.S. in Computer Science and Engineering

3.5/4.0 GPA, Aug 2019

**Courses**: Computer Vision, NLP in Gender Bias, Statistical Bioinformatics, [Machine] Learnability Theory, Search Algorithms, Statistics, Discrete Math, Data Mining, Probabilistic Databases, Reinforcement Learning

Honors: Dean's Honors

# **WORK EXPERIENCE**

### **UCLA Visual Machines Group**

Los Angeles, CA

Graduate Student Rotation Researcher Apr 2020 – Present

Detect heart rate and blood oxygen levels from webcam videos of people's faces for telemedicine use.

• Develop provisional-patented model to help reduce in-person doctor visits during the pandemic.

LendingClub

San Francisco, CA

Jun 2019 – Aug 2019

- Implemented full-stack click tracker using React, Node, SQL, Spring Boot to collect users' loan preferences.
- Captured 800+ clicks/week on partner loans using this tracker, gathering key business insights on user behavior.
- Revised UI state management for loan offers page to preserve user's progress even after a browser refresh.

Veritas

Santa Clara, CA and Mountain View, CA

Jun 2018 - Sep 2018 and Jun 2017 - Sep 2017

Software Engineering Intern

Software Engineering Intern

- Developed authentication client & server compatible with Veritas products using **REST**, **RSA crypt**, and **PL/SQL**.
- Developed full-stack desktop app using Spring Boot and JavaFX to auto-renew users' expiring Veritas licenses.
- Wrote Java app to analyze any PDF invoice heuristically using Tesseract and LingPipe NLP, extracting payment
  date, tax amount etc. saving time by eliminating manual data entry, providing service to 86% of Fortune 500 firms.
- Improved navigation experience for Angular-based web app for customers like Intel, T-Mobile, and BofA.
- Organized events as a lead intern and wrote articles on Veritas' on-campus life with interns.

# Howard Hughes Medical Institute, Ozcan Research Group

Los Angeles, CA

Undergraduate Researcher and Developer

Dec 2015 – Mar 2019

- Contributed to 4 academic papers, 11 conference proceedings and 4 oral presentations overall.
- Used MATLAB-based machine learning image analysis using Boosted Tree & neural network.
- Raised sickle cell anemia detection accuracy from portable microscope images from 75% to 92%.
- Reduced diagnosis costs in Sub-Saharan African countries having >150,000 deaths/year.
- Received Best Project Award at Ozcan Research Group showcase.

# **PERSONAL PROJECTS**

#### keras-buoy (Github: github.com/dorukkarinca/keras-buoy)

Sep 2018

- Built Keras wrapper that automatically recovers from a crashed/accidentally-cancelled ML training process.
- Made pip package in Python to help aspiring data scientists train ML models for longer periods easily.
- Project downloaded over 2000 times, received 13 stars and 4 forks on Github.

# Uplift (Android app):

Nov 2016 and Apr 2015

- Built backend of social network application based on location-based content ranking using Node.js.
- Won Top 10 Prize at LA Hacks, UCLA's hackathon, among 200 teams.
- Won Facebook Award: Best Product among 10 teams, as decided by a jury of Facebook engineers.

## **TECHNICAL SKILLS**

- Proficient: Python (Keras, Pytorch), Java (Spring Boot), MATLAB.
- Basic: TensorFlow, PL/SQL, Bash.