Can Koz

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SOFTWARE ENGINEERING

Oracle — JUN 2019 – AUG 2019
Software Engineering Intern - Contractor
- Improved the run time of existing SQL Queries by 20% through code refactoring/rewriting.
- Visualized existing data according to requirements.
- Worked as an open source contributor to All Data Management Project which utilized Apache Hadoop.
- Held, attended coding sessions on weekly online meetings and presentations.

Nokia — JUN 2018 – AUG 2018
Research and Development Intern
- Design UI by using Java for gateways which currently enable 5G in Turkey.
- Built UI using Java which supervises 2 million+ of nodes / gateways located around Turkey.
- The UI visualizes performance metrics for the infrastructure that reaches out to 80+ million devices that use cellular internet.

MACHINE LEARNING RESEARCH

University of Oxford, VGG — JUL 2023 – CURRENT
MSc Thesis Student

Currently working on generation of controllable and deformable objects. Supervisor: Dr. Tomas Jakab, Luke Melas-Kyriazi.

"Multi-task Learning for OCTA Vessel Segmentation"
NeurIPS 2023 **Paper**
- Created a novel and state of the art multi-task learning method for OCTA segmentation.
- Collaborated with a PhD Student at Stanford University and Machine Learning Engineer at Google.

Carnegie Mellon University, VDEL — MAR 2020 – MAR 2023
Undergraduate Research Assistant

"Flaw Detection in Metal Additive Manufacturing Using Deep Learned Acoustic Features" *NeurIPS 2020* **Paper**
- Built a CNN model that classifies flaws during the additive manufacturing process from audio samples.
- Use transfer learning, deployment of a pretrained ResNet50 for sound classification, PyTorch, Python, and SciPy.

"Data Augmentation of Engineering Drawings for Data-Driven Component Segmentation" *IDETC-CIE 2022* **Paper**
- Engineered (COV) Coefficient of Variation feature and implemented Zernike Moments of components which improved segmentation results by 5%
- Created a prepossessing step which combined Hough line detection with custom erosion and dilation steps to segment different parts of the engineering drawings.
- Built a PyTorch Geometric pipeline and implemented GraphSage model that reached 90% accuracy for classifying dimension / contour lines on engineering drawings.

Space Technologies Research Institute — DEC 2018 – JAN 2019
TUBITAK
Computer Vision Lab Intern
- Image search with Histogram of Graphs (HOG) on Inria Holidays dataset using Python, OpenCV.

EDUCATION

2023 – 2024	**University of Oxford** Computer Science *MSc in Advanced Computer Science*
2020 – 2022	**Koc University** DEANS STUDENT, TOP 10 %, GPA 3.82 Computer Engineering *Bachelor of Science*
2019	**University of California, Berkeley** HOG CHAMPION, CS61A Computer Science *Summer Sessions*
2018 – 2020	**Diablo Valley College** HONORS Electrical and Computer Engineering *for Transfer**

AWARDS

1st Place, The Resiliency Challenge - Health
Boston University

1st Place, World Hackathon Day 2020 - Health
First place among 200+ projects

2nd Place, hack:now 2020 Best use of Google Cloud
Major League Hacking - UC Berkeley

1st Place, CalHacks 2019 Goldman Sachs' Prize
UC Berkeley

PROJECTS

physyou - Treehacks 2021 ○ **DevPost**
AI-powered physical therapist, anywhere. Built with Google MediaPipe, Google Firebase, BlazePose, Netlify.

COVID Analyst - hack:now ○ **DevPost**
AI-powered targeted analytics for the COVID-19 pandemic. Built with Google Dialogflow, Google Cloud.

Pocket Analyst - Cal Hacks 6.0 ○ **DevPost**
Navigate the world of financial markets with institutional grade information from your phone. Built with Blackrock API, Marquee API, Google Dialogflow, Google Cloud.

FixEye - Health ++ 2019 ○ **DevPost**
Detect chronic diseases through non-invasive retinal scans. Built with Keras, Numpy, OpenCV, Python, Skimage.

No More TV Ads! - TreeHacks 2019 ○ **DevPost**
A product which filters out ads from live TV. Built with C++, OpenCV, FFMPEG.

COMPUTER SKILLS

EXPERT	Python, Pytorch / Pytorch Geometric, OpenCV, Git
INTERMEDIATE	C++, Swift, Java, Keras, Unity, SQL Google Cloud Platform, MATLAB, Amazon Web Services, Adobe Photoshop

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*Intended to complete undergraduate education in the US, returned back to Turkey due to COVID-19.

LEADERSHIP

MSc in Advanced Computer Science at University of Oxford   Sept 2023 – Present
Course Representative
- I created and currently manage a 100+ member server for the MSc in Advanced Computer Science, D.Phil students at University of Oxford.
- I attended administrative meetings and passed on the concerns and suggestions of the class of 2023-2024.

DV Hackers   Sept 2018 – May 2020
President
- I coordinated 8 officers and a group of 45 members and prepared them to Competitive Coding Competitions.
- DV Hackers has been the largest programming club at Diablo Valley College during the time we co-founded the club.

  Github | LinkedIn | Website | Instagram

Global Leadership Organization   SEP 2019 – OCT 2019
General Staff
- I was an attendee at GLO Summit in 2018 and joined the GLO's Certified Leadership Training Sessions throughout 2019.
- In 2019, I took part in the organization team as General Staff at the GLO Summit at Berkeley,CA.

  LinkedIn | Website

TEACHING

Oxford AI Society, OxAI   OCT 2023 – Present
Lecturer
- I will be preparing blog posts and lectures on 3D Generative models to be presented in the Hilary Term.

Deeplearning.AI, AI for Medicine Specialization   Jul 2022 – Present
Mentor
- Support learners by answering queries.
- Report any technical issues found by Learners or Mentors on Gitissue.
- Report content related issues.
- Report content improvement suggestions.

Stanford University, CS Bridge 2021   Jun 2021 – Aug 2021
Section Leader
- Taught Python programming language to 10+ students in the CS Bridge program.
- Improved my teaching abilities by receiving feedback from Nick Troccoli.

  Certificate Link

Stanford University, Code in Place 2021   Mar 2021 – May 2021
Section Leader
- As a volunteer section leader, I prepared and taught a weekly discussion section of 8-10 students to supplement professors' lectures.
- Created and led weekly discussion sections for Code in Place, introductory programming class offered globally during COVID19 crisis.
- Increased students' understanding of Computer Science concepts and fundamentals.

  Certificate Link

VOLUNTEERING

UC Berkeley, Cal Hacks 5.0   Nov 2018
Volunteer
- I helped making the biggest collegiate hackathon possible as a Volunteer at CalHacks 5.0

Nokia   Jun 2021 – Aug 2021
StrongHer Turkey Antenna Team Member
- StrongHer is an employee network on Nokia where members work on various activities for gender diversity including networking opportunities, personal development, and social activities.

NON-DEGREE COURSEWORK

- Self-Driving Cars Specialization (4 Courses) | Certificate Link
- Tweet Emotion Recognition with TensorFlow (1 Course) | Certificate Link
- AI for Medicine Specialization (3 courses) | Certificate Link
- Deep Learning Specialization (5 Courses) | Certificate Link