

Can Koz

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

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**
Zhang, W. Abranovic, B. Hanson-Regalado, J. Koz, C. Duvvuri, B. Shimada, K. Beuth, J. Kara, L. B.

- 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.
- Visualization of results such as the confidence matrix, use of Adobe Photoshop for images on the paper.





“Data Augmentation of Engineering Drawings for Data-Driven Component Segmentation” *IDETC-CIE 2022* **Paper**

Zhang, W. Chen, Q. Koz, C. Xie, L. Regmi, A. Yamakawa, S. Furuhashi, F. Shimada, K. Kara, L. B.

- Engineered (COV) Coefficient of Variation feature and implemented Zernike Moments of components which improved segmentation results by 5%
- Created a preprocessing 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.

 [canxkoz.com](https://github.com/canxkoz)
 linkedin.com/in/canxkoz/
 github.com/canxkoz/
 canxkoz@gmail.com

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

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