

# Can Koz

## WORK EXPERIENCE

Grayscale AI JUNE 2022 – CURRENT  
**Computer Vision Engineer - Contractor**

- Spike Neural Networks on event based video.
- Neuromorphic Deep Learning and Event-based vision.
- Simulation for AI models.

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 will soon 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.

## UNDERGRADUATE RESEARCH

Carnegie Mellon University, VDEL MAR 2020 – CURRENT  
**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.

- Improved classification accuracy by 5% through feature engineering. I engineered Coefficient of Variation (COV) and implemented Zernike Moments.
- 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/](https://linkedin.com/in/canxkoz/)  
 [github.com/canxkoz/](https://github.com/canxkoz/)  
 [canxkoz@gmail.com](mailto:canxkoz@gmail.com)

## EDUCATION

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

BEGINNER High Frequency Trading, QuantConnect, Twitter API, Binance API, OpenAI API

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