DILARA OZDEMIR

COMPUTER ENGINEER

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ABOUT ME

I received a bachelor's degree in Computer Engineering from Karabuk University. I have been working as a Research Assistant at Zonguldak Bülent Ecevit University since February 2022. Since November 2020, I worked at SimurgAI located in the Technology Development Office of Karabuk University and I have been working as an Artificial Intelligence Specialist as of November 2021. Between January 2021 and July 2021, I worked as an intern researcher within the scope of TUBITAK STAR in the Artificial Intelligence Assisted Automatic Analysis of Images Obtained in Dentistry (DentiAssist) project that we are developing within the company. Our project titled Analysis of Panoramic Dental Images with Deep Learning Methods, which we developed with my supervisor, received support within the scope of 2209-A University Students Research Projects Support Program. I am pursuing my Master's Degree in Computer Engineering.

COURSES

- Neural Networks and Deep Learning/Coursera
- AI for Everyone/Coursera
- Machine Learning Crash Course/Google Developers
-Signal and Image Processing, Deep Learning/TED University
- Database Design and Programming with SQL/ORACLE
- Machine Learning, Deep Learning/IEEE TURKEY SECTION
- Radar Systems Fundamentals/ASELSAN
- Statistics & Python: Basic Statistics Science, Deep Learning and Python: Deep Learning, Machine Learning and Python, Data Visualization, Data Science and Python: Expertise / DATAI TEAM

PROFESSIONAL SKILLS

Coding Languages
Python, C, Java, PHP, C#
Frameworks/Systems
Deep Learning
- TensorFlow, Keras, PyTorch
Data Science
- NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn
Others
- Ruby on Rails, Laravel, Matlab

REFERENCES

Assist. Prof. Caner OZCAN
CEO, Founder of SimurgAI
Mail: canerozcan@karabuk.edu.tr

ACADEMIC PAPERS

- A. Karaoglu, C. Ozcan, A. Pekince, Y. Yaşa, B.Y. Tekin, D. Ozdemir, Automatic Dental Segmentation Module Supported by Artificial Intelligence for Dentistry Students Education, Artificial Intelligence Theory and Applications 1(2): 180-190 (Special Issue), 2021.

- B.Y. Tekin, C. Ozcan, A. Pekince, Y. Yasa, A. Karaoglu, S. Cilek, D. Ozdemir, E. Meseci, Tooth Detection and Numbering with Instance Segmentation in Panoramic Radiographs, International Conference on Interdisciplinary Applications of Artificial Intelligence (ICIDAAI), 1st, Online, 21-23 May, 2021.

EXPERIENCE

RESEARCH ASSISTANT

BULENT ECEVİT UNIVERSITY | FEB. 2022 - CONT.

- Department of computer science

ARTIFICIAL INTELLIGENCE SPECIALIST

SIMURGAI | NOV. 2021 - CONT.

- Computer Vision, Deep Learning, Object Detection, Segmentation.

ARTIFICIAL INTELLIGENCE DEVELOPER

SIMURGAI | OCT. 2020 - NOV. 2021

- Object Detection, Segmentation and Analysis on MR Images via Transfer Learning

RESEARCH INTERN

TUBITAK | FEB. 2020 - JUL. 2021

- Object Detection, Segmentation and Analysis on MR Images via Transfer Learning

LABORATORY ASSISTANT

KARABUK UNIVERSITY | SEP. 2019 - MAR. 2020

- Student Assistant of CME112-Programming Languages Course

EDUCATION

Karabuk University

BACHELOR OF SCİENCE IN COMPUTER ENGINEERING | 2016 - 2021

- Bachelor of Science in Computer Engineering | 2016 - 2021 (GPA 3.24 / 4.00)

Karabuk University

MASTER OF SCIENCE IN COMPUTER ENGINEERING | 2021 - CONT.

PROJECTS

ANALYSIS OF PANORAMIC DENTAL IMAGES USING ARTIFICIAL LEARNING TECHNIQUES

SIMURGAI (OCT. 2020 - CONT.)

As the workload of dentists is too high, treatments cannot be followed regularly, and because of the COVID-19 epidemic and similar epidemic risks in the future, less doctor-patient contact is required, as a solution, artificial intelligence supported dental radiography analysis is performed.

SEGMENTATION OF BITEWING INTRA ORAL X-RAY IMAGES WITH MASK R-CNN DEEP LEARNING MODEL

SIMURGAI (OCT. 2021 - CONT.)

In the treatment and diagnosis process of teeth that need to be examined in detail in the field of dental health, bitewing intraoral radiography images are used. It is an ideal diagnostic method for the detection of recurrent caries that cannot be directly seen in the mouth, especially at the interface of small and large molars and under restorations.

CARIES DETECTION ON RADIOGRAPHS USING CLASSIC MACHINE LEARNING CLASSIFIERS

SIMURGAI (OCT. 2021 - CONT.)

Diagnosis of dental caries is a visual method based on clinical and radiographic examination. Detection of dental caries is provided by using classical machine learning classifier algorithms in panoramic x-ray images.