Contact

+90 549 796 12 55
zeynepakcil@gmail.com
Ankara, Turkiye

linkedin.com/in/zeynepakcil/
github.com/zeynepakcil
zeynepakcil.github.io/

Projects

Cat Adventure - Java Based 2D Platformer Game

FPGA Based Temperature and Motion Detection using ADC

TRC-11 (transmitter-receiver)
27 MHz , soldered and assembled on PCB.

Oscillator
18 V DC supply, outputs 15 V (Vpp) sinusoidal signal. PCB design is made on Diptrace and assembled by soldering.

Achievements

University Entrance Exam of Turkey

Ranked 71st in 3 million exam takers. Awarded with fully funded scholarship (comprehensive) at Bilkent University.

Also awarded with scholarship given to **best 100 students** in exam by state (CoHE).

Skills

- Python, Java, Deep Learning, Edge AI
- Hardware Acceleration
- Hardware-Software Co-Optimization
- VHDL, Verilog
- VLSI, ASIC Design

Languages

Turkish ● ● ● ● ●
English ● ● ● ● ●
German ● ●

Zeynep Akcil

Senior Electrical and Computer Engineering Student

Enthusiastic student who has interest in VLSI&hardware design, hardware acceleration and chip design for AI.

Education

- Bilkent University *3.57 CGPA*
  Electrical Electronics Engineering - Full (Comprehensive) Scholarship
  September 2021 - Present
  Related Courses Taken:
  - Calculus, Linear Algebra, Probability and Statistics
  - Analog Electronics, Circuit Theory, Electronic Circuit Design
  - Digital Electronics, Embedded Systems and Computer Architecture
  - Signals and Systems, Feedback Systems, Electromagnetics, Digital Communications
  - Introduction to Programming in Python, Algorithms&Programming with Java
  - Database Systems&SQL, Introduction to Machine Learning, Neural Networks

- Huseyin Avni Sozen Anatolian Highschool *99/100*
  Istanbul, Turkiye September 2017 - June 2021

Experiences

- ETH Zurich Integrated Systems Laboratory
  Undergraduate Researcher and Intern
  Digital Circuits and Systems Group
  June 2024 - October 2024
  Comparing multimodal Convolutional Neural Networks and Vision Transformers depending on the accuracy and memory consumption, RISC-V deployment
  Supervisors: Prof. Luca Benini and Viviane Potocnik

- Alkan Lab Bioinformatics & Computational Genomics
  Volunteering Student
  October 2024 - Present
  - **POACA: Partial Order Alignment Computational Acceleration:** Hardware-Software Co-optimization in bit-parallel sequence-to-graph alignment, ASIC design for hardware optimization
  - **EU Project, BioPIM**: Processing-in-memory architectures and programming libraries for bioinformatics algorithms
  - Benchmarking for efficient AI deployment on different architectures, collaboration with UPMEM

  Supervisors: Assc. Prof. Can Alkan, Berkan Sahin and Zulal Bingol

Projects

- Deep Learning Based Thermal Image Super Resolution
  October 2024- June 2025
  Super-resolution task for low-resolution thermal images from different resolutions. Development of novel deep learning model and dataset.
  Completed in collaboration with TUBITAK
  Academic supervisor: Tolga Cukur
  Company mentors: Emrah Oduncu, Huseyin Yalcin

Extracurricular Activities

- EFCL Summer School
  June 3-7 2024, Zurich, Switzerland
  Open Source IC Design and Computer Architectures
  Track 3-Embedded AI for Biosignal Processing
  36 hours of lectures and hands-on sessions.