

ILAYDA YAMAN

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EDUCATION

Lund University Master's Degree - Embedded Electronics Engineering	<i>09/2018 - 06/2020</i> GPA: N/A
Istanbul Technical University Bachelor's Degree - Electronics and Communication Engineering	<i>09/2014 - 06/2018</i> GPA: 3.13/4.00
University of Waterloo Exchange Program	<i>06/2015 - 08/2015</i> GPA: N/A
TED Ankara College High School	<i>09/2009 - 06/2013</i> GPA: 86.82/100

PROJECTS

- Master's Thesis - A Hardware Accelerated Low Power DSP for RNNs *08/2019-06/2020*
 - Implementation of a Recurrent Neural Network model by designing a Digital Signal Processor (DSP) and a hardware accelerator for a power efficient and flexible system.
 - Tensilica Customizable Processor will be realized in 28nm technology.
- Integrated Circuits Design Course Projects *02/2019-07/2019*
 - Designed an ASIC for Matrix Multiplications in Cadence 65nm technology.
 - Designed and implemented a pipelined radix-2 FFT circuit with SDF architecture for 2048 points as an ASIC in Cadence 65nm technology.
- Competition Project - FPGA Based Sign Language Interpretation Using Convolutional Neural Networks *01/2018-08/2018*
 - Implemented a Convolutional Neural Network on ZedBoard Zynq™-7000 Development Board for "Sign Language Interpretation" using Xilinx Vivado and SDK. Project was selected as a finalist in "Xilinx Open Hardware Competition - 2018".
- Bachelor's Thesis - Implementation of NIST Tests on a Chaotic Random Number Generator inside a System on Chip *05/2017-08/2018*
 - Designed a custom IP was in Xilinx Vivado Design Suite for random number generation and Linux Operating System was booted in the system to run NIST Tests.
- Microprocessor System Design Lecture Project - Tetris Game *02/2018-06/2018*
 - Design and implementation of a simple platform to play Tetris game on a "Digilent Nexys 2 FPGA" with the help of a soft microprocessor, PicoBlaze, and a VGA unit.

EXPERIENCE

PhD student in Lund University

03/2021 - present

Lund, Sweden

- Teaching Assistant : Introduction to Structured VLSI Design, Computer Architecture, IC-project 1
- Supervisors: Liang Liu, Ove Edfors and Karl Åström, Steffen Malkowsky

Project Consultant and Teaching Assistant in Lund University

06/2017 - 07/2017

Lund, Sweden

- Verilog and FPGAs.
- Worked with ModelSim and Questa Simulators
- Assisted trainings given by the company

Supplemental Instructor(SI) Leader

08/2019 - 11/2019

Lund, Sweden

- Teaching Assistant of the course Digital IC Design

Summer Intern in Anka Microelectronics Systems

06/2017 - 07/2017

Istanbul, Turkey

- Verilog and FPGAs.
- Worked with ModelSim and Questa Simulators
- Assisted trainings given by the company

Summer Intern in ITU - RF Electronics Laboratory

06/2016 - 08/2016

Istanbul, Turkey

- Microcontrollers and Analog circuit design.

PUBLICATIONS

1. I. Yaman, A. Andersen, L. Ferreira and J. Rodrigues, "FLoPAD-GRU: A Flexible, Low Power, Accelerated DSP for Gated Recurrent Unit Neural Network," 2021 34th SBC/SBMicro/IEEE/ACM Symposium on Integrated Circuits and Systems Design (SBCCI), 2021, pp. 1-5.
2. L. Akçay, E. Çil, A. Vardar, İ. Yaman, R. Yeniçeri and M. E. Yalçın (2018) Implementation of a chaotic time-delay RNG based secure communication system on FPGA. *10th International Conference on Electrical and Electronics Engineering (ELECO)*, Bursa, Turkey (Oral Presentation).

OTHER CERTIFICATIONS

- IELTS Score: 7.5 Overall Band Score in March 2018
- Goethe-Zertifikat B1

SCHOLARSHIPS AND AWARDS

- Lund University Global Scholarship

STRENGTHS

Languages	Turkish (Native), English (Fluent), German (B1 Level)
Programming Languages	C++, C, Assembly, Matlab, Python
Hardware Description Languages	Verilog, VHDL