Gokce Can Pilli

275 Waite Ln. Apt 201 | Platteville, WI, 53818 | gcpilli@wisc.edu | 6084229927 |linkedin.com/in/gokcepilli

EDUCATION

University of Wisconsin-Madison | Madison, WI **Dec 2023**
Master of Science: Electrical and Computer Engineering

- GPA: 3.90/4.0
- Relevant Coursework: Digital Systems Testing, VLSI Systems Design, Embedded Computing

University of Wisconsin-Madison | Madison, WI **May 2019**
Bachelor of Science: Computer Engineering, Computer Science

- GPA: 3.36/4.0 (Dean's List)

PROFESSIONAL EXPERIENCE

Belcan (Formally Avista Inc.) | Platteville, WI Aug 2019 – Present
Electrical Engineer III

Black/Grey Box Test Environment Development for DO-178, DAL B, Engine Control Unit:

- Lead test environment production for the verification team to test DO-178, DAL B level engine control unit software
- Designed multiple PCBs to emulate over 200 analog and digital signals that are read by engine control units
- Architected the SPI and I2C firmware to control the mix analog and digital signals that the environment produces
- Soldered PCBs manually and wired them to the engine control units
- Produced acceptance tests to verify environment functionality
- Documented the assembly and the functionalities of the test environment

Requirements Based Testing for DO-254, DAL B Engine Control Unit FPGA Code Verification:

- Verified the functionality and safety of the FPGA code by writing test scripts based on the requirements with MC/DC principles
- Developed blackbox manual test scripts in addition to simulation test environment by probing target hardware
- Reported any code or safety issues that arised during testing to customer

PCB Development for Aircraft Fuel Tank Oxygen Sensor based on MIL-STD-461:

- Iterated an existing aircraft fuel tank oxygen sensor PCB design
- Developed 8-layered PCB per MIL-STD-461 environment testing
- Improved the data reading and reliability of the existing design by using a more efficient and capable microcontroller and reducing the external IC count

ACADEMIC EXPERIENCE

VLSI Design Projects:

- Developed Verilog implementation of Forward-Forward inference algorithm based Python model
- Emulated 16-bit instruction set CPU architecture with five stage pipeline, hazard detection and data forwarding
- Researched the effectiveness and efficiency of Annealing algorithm based placement and routing stage of FGPA design and compared it to more sophisticated linear algebra based algorithms

SKILLS & INTERESTS

PCB Design Tools: Eagle CAD, Altium PCB Designer, Cadence Allegro, KiCad
FPGA and Testing Tools: Modelsim, Questasim, Xilinx, Quartus, VectorCast, LDRA
Programming Languages: Verilog, System Verilog, VHDL, Pyhton, C, C++, MATLAB, Java, Javascript, Perl
Languages: Turkish, English, Italian, Japanese
Interests: Microprocessors, Semi Conductor Manufacturing, Stock Market, Gym, Running, Karate, Gaming, Anime