Yin Fung Khong

yinfung96@gmail.com | 206-434-2327 | yinfung96.github.io | linkedin.com/in/yinfungkhong

Recent M.S in Computer Engineering graduate with prior internship experience in Intel, equipped with hands-on experience in hardware and software development, proficient in a range of Hardware Description Languages and Object-oriented Programming: C, Python, Verilog, Verilog/SV and Vivado SDK. Adept at image processing with a research publication in IEEE conference. Proactive and possesses analytical problem-solving skills to resolve issues in a fast-paced environment.

EDUCATION

Master of Science in Computer Engineering, 2019, GPA 3.94/4.0

Bachelor of Science in Computer Engineering, 2018, GPA 3.94/4.0

California State University, Northridge (CSUN)

- Summa Cum Laude (2018), Distinction Award, Outstanding Graduate Student (2019), Dean's List
- Coursework: Digital Systems Design with Programmable Logic, Digital Design with Verilog and System Verilog, FPGA/ASIC Design and Optimization using VHDL, System on a Chip (SoC) Design, Microprocessor Systems, Diagnosis and Reliable Design of Digital Systems, Digital System Design Automation and VHSL Modeling
- Tau Beta Pi Engineering Honor Society (TBP), Institute of Electrical and Electronics Engineers (IEEE)

SKILLS

Programming: C, Java, Python, VHDL, Verilog, System Verilog, Matlab, C#, ARM Assembly, PHP, HTML

Embedded System: Xilinx Zynq-7000 SoC Zedboard, ARM7 LPC2148 Microcontroller

Operating Systems/Development Tools: Microsoft Windows, Linux, Mac, Ubuntu, Visual Studio, Vivado SDK

Multilingual: fluent in English, Mandarin, Bahasa Malaysia and conversational in Cantonese and Hokkien

CRLA International Mentor Training Program Certification (IMPTC): Certified Mentor Level I

WORK EXPERIENCE

Graduate Assistant | *CSUN Dept of Electrical & Computer Engineering* ***Sept 2018 – May 2019***

- Assisted approximately 200 students, offered constructive feedback based on students' performance.
- Led weekly lab and provided feedback to improve programming and debugging technique for code efficiency.

Graduate Intern | *Intel Corporation (iCDG)* ***June 2018 - Aug 2018***

- Developed and debugged C# software application to expedite and automate test data analysis, incorporating JMP and various package managers to populate Microsoft Excel report with calculations and graphs included.
- Implemented Machine Learning using Python for pattern detection to predict the data distribution type.

PROJECTS

Efficient Implementation of Nucleus Detection and Segmentation Using Correlated Dual Color Space ***Apr 2019***

- Researched and proposed an efficient algorithm for nucleus segmentation in microscopic blood images using digital image processing techniques, to improve the accuracy and accelerate blood diagnosis.
- Developed a highly versatile image processing technique to segment the nuclei from a broad spectrum of blood images while retaining cell features and integrity in the processed image up to 98.99% accuracy using Matlab.

Automated Application Data Validator using C# ***Apr 2019***

- Assessed the process and made recommendations to implement automated validation tools to supervisors.
- Utilized C# in Visual Studio IDE to develop a software tool that automates data validation, flags invalid or incomplete profile with high accuracy, and reduced human involvement and processing time up to 95%.

RISC-Y Processor using Verilog and System Verilog ***May 2018***

- Modeled a working RISC-Y processor that has immediate or direct addressing mode, by instantiating modules such as scalable MUXs and registers, sequence controller, scalable register files, AASD and ALU.
- Wrote a testbench to verify the functionalities of the processor module: fetch an instruction from the ROM memory, decode the instruction, fetch a data operand, perform ALU operations and store the result.

INVOLVEMENTS / ACHIEVEMENTS

President, *Leaders in Engineering and Computer Science Student Council* ***Nov 2017 – May 2019***

President, *Tau Beta Pi Engineering Honor Society* ***May 2017 – May 2019***

Peer Mentor, *CSUN Mentorship Program* ***Jan 2017 – May 2019***

Student Coordinator, *CSUN-CECS Mentorship Program* ***Jan 2019 – May 2019***

President's Volunteer Service Award (PVSA) – Gold Award ***2016, 2017, 2018, 2019***