# **YIN FUNG KHONG**

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# SUMMARY

Highly motivated, passionate and ambitious young professional demonstrated success and dedication in academics and leadership. Detail-oriented, attentive and dependable, completed every assigned tasks and responsibilities in a timely manner with genuine commitment to quality and satisfaction with great engineering ethics and disciplines. Proactive leader and team player in organizations and extracurricular activities, integral to success of numerous projects and improvement initiatives in student affairs, both university and college level.

# **EDUCATION**

# California State University – Northridge (CSUN)

Spring 2019

M.S. in Computer Engineering

(3.95/4.0 CGPA)

Distinction Award

• Outstanding Graduate Student

California State University – Northridge (CSUN)

Awarded on January 2018

• **B.S.** in Computer Engineering

(3.94/4.0 CGPA)

(3.97/4.0 CGPA)

Awarded on June 2015

• Summa Cum Laude (First Class Honors)

North Seattle College (NSC), Seattle, WA

• Associate of Science (A.S)

**Dean's List - 2** Quarters & 7 Semesters **Achievement Scholarship** – 1 Quarter

**President's List - 4** Quarters **Merit Scholarship** – 2 Quarters

# SKILLS / CERTIFICATION

**Programming** – VHDL Verilog MATLABJava Python ARM C  $C^{\#}$ *Wordpress* Multilingual - fluent in English, Mandarin, Bahasa Malaysia and conversational in Cantonese 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

- Graded assignments and lab reports, and tabulate grades accordingly.
- Assisted in lab, answering questions related to homework assignments and laboratory experiments.

#### Peer Mentor | CSUN Mentorship Program

Jan. 2017 – May 2019

- Impacted assigned mentees positively by serving as a social and academic role model.
- Helped set goals and offer support through referral of resources available on campus.
- Fostered a supportive environment with constructive feedback on performance.

# Student Coordinator | CECS Mentorship Program

Jan 2019 – May 2019

- Identified the concerns and needs of the students within the College of Engineering and Computer Science, in and outside of the classroom.
- Structured and piloted the program to improve students learning outcomes within the program.
- Communicated with the student mentors to discuss mentees' concerns and brainstorm solutions.

#### **Graduate Intern** | *Intel Corporation (iCDG)*

June 2018 - Aug 2018

- Designed and developed C# application that integrates JMP for product's test data analysis.
- Implemented Machine Learning for pattern detection in test data.
  - \*Reference available upon request

- Liaised with the marketing department to visualize and design marketing materials.
- Created and photographed college's community and events based on the marketing needs.

#### PERSONAL ACHIEVEMENTS

# **Matador Volunteer Service Award**

2019

• Accumulated total of 350 hours of community services, including outreach, Matador Day of Service, campus clothes drive, beach cleanup, Cesar Chavez Service Fair and etc.

# President's Volunteer Service Award (PVSA)

2016, 2017, 2018

- Awarded Gold Awards for three consecutive years of active involvement.
- Accumulated over 100 hours of community services on and off campus each academic year.

# Best Leadership Award, Tau Beta Pi Engineering Honor Society

2018

- Dedicate on average of 8 hours for officers' coordination, event planning and outreach.
- Created a new chapter website for members recruitment and chapter's news and updates.
- Invited and involved faculty members in chapter development and improvement.

# Automated Music Box using SoC and Image Processing (Project)

Nov. 2017

- Awarded second runner up in ECE Senior Design Project Presentation Competition.
- Camera capture of music sheet, notes detection using image processing techniques.
- Audio processing using audio codec and I2C protocol to remap and reproduce melodic sound.

#### **PROJECTS**

# A Novel Approach for Efficient Implementation of Nucleus Detection and Segmentation Using Correlated Dual Color Space \*\*April 2019\*\*

- Researching an efficient yet accurate algorithm in blood cell segmentation in microscopic blood images using digital image processing techniques, to improve and accelerate the diagnosis of different hematologic disorder.
- The research proposes a novel technique that involves the RGB and CMYK color spaces.

# **Blood Cells Detection using Circular Hough Transform in MATLAB**

Dec 2018

- White Blood Cells detection and calculation on color blood test images.
- Morphological operation to process and filter image noise for further handling.
- Translated concept for implementation on real-time detection on FPGA.

# Multi-Clock and Timers using ZedBoard Development Board

Nov 2017

- Implemented FSM on the FPGA for chess clocks and timers with error handlings.
- Added Seven-segment displays for two user's countdowns, with on-board LEDs.
- Implemented LFSR for pseudo-random number generation for Fischer chess clock.

# Audio Codec using ZedBoard SoC Development Board

May 2017

- Integrated PL and PS of the board to implement functionality for audio streaming.
- Added frequency filtering and tones to the audio streaming output.
- Implemented onboard display and switches for better user experience and control.

# 32 Bit Binary Floating-Point Adder Using IEEE 754 Single Precision Format

Nov 2016

- Implemented floating point adder in VHDL according to IEEE 754 standard.
- The adder accepts and normalizes two numbers, and using two's complement adder to add or subtract the pre-normalized significands.
- The design is simulated and tested using Xilinx Vivado software.

President, Tau Beta Pi Engineering Honor Society

May 2017 – May 2019

- Re-chartered the chapter in the college, initiated over 140 members into the organization.
- Coordinated officers, maintained chapter operations and defended constitution.
- Maintained industrial connection, coordinate recruiting session/workshops on campus.
- Awarded "Effective Use of Technology Award" in recruiting and promoting the organization.

President, Leaders in Engineering and Computer Science - Student Council Nov. 2017 - May 2019

- Developed a unified, comprehensive representation of students in the college.
- Served in Student Advisory Board and assist the college in ABET accreditation.
- Coordinated Engineering Week and similar event series inclusive to all students.

# Matador Mentor, CSUN New Student Orientation (NSO)

May 2016 - May 2019

- Mentored incoming orientation leaders and provide support to the NSO Leadership.
- Welcomed and acclimated new students to the university environment and culture.

# Unified We Serve, CSUN Matador Involvement Center

Sept. 2015 – April 2019

- Volunteered in various activities on and off campus as a whole.
- Promoted community engagements and awareness.

# Chair of Financial Affairs Committee, Tau Beta Pi National Convention

*2017, 2018* 

- Reviewed the auditor's and Executive Director's reports.
- Reviewed the chapter accounts receivable to TBP Headquarters.
- Determined and made motions pertinent to the association's spending budget.

# Vice President, Tau Beta Pi Engineering Honor Society

May. 2016 - May 2017

- Assisted President of the chapter in all legal duties of the chapter.
- Maintained communication and coordinated officers for chapter's activities.

# Webmaster, Tau Beta Pi Engineering Honor Society

Jan. 2016 - May 2016

- Developed and designed a new website for chapter's event postings and updates.
- Maintained and updated the website to enhance members experience.

# Treasurer, CSUN Cross-Cultural Friendship Club

Aug. 2015 - July 2016

- Handled all financial affairs, preparation of financial report and record keeping.
- Prepared and defended annual budget application for organization's activities.

# I-Care Volunteer, North Seattle College Volunteering Program

Sept. 2014 - May 2015

- Volunteered in community kitchen to prepare meals to local emergency shelters.
- Packed and transported meals to shelters and facilities, and served the needy.