Jia En Chua

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Objective

To obtain a computer engineering internship/co-op position in 2018.

Education

Purdue University, West Lafayette - Bachelor of Science in Computer Engineering   Fall 2018
INTI University, Malaysia – Bachelor of Science in Engineering (CGPA = 3.50/4.00)   Fall 2015

Relevant Coursework: Microprocessor System Design, Digital System Interface Design, Circuit Analysis
Experienced in Embedded System, High level C Programming and 9S12C32 Microcontroller Interface

Programming Languages	Tools	Others
C/C++, Python, Matlab, Assembly, ABEL	GDB, DDD, Linus, Git, Valgrind, PSPICE	English: Fluent, Chinese: Native Malay: Fluent

Professional Experience

➢ **Software Engineering Intern, Aeste Works, Malaysia**   Summer 2017
  ❖ Generate C++ program automate synthesis for Verilog design and result in 40% of speed increase
  ❖ Implement algorithm to optimize block arrangement recursively and save 30% of space
  ❖ Invent switch design in Verilog to communicate with arbitrary number of I/O devices
  ❖ Create naming convention to connect CPU and I/O ports via Wishbone protocol

➢ **Electronics Design Teaching Assistant, Purdue University, Indiana**   Fall 2017
  ❖ Co-lead a class of 20 students to conduct hands-on experiment in electronics
  ❖ Perform circuit debugging and verification of resulting waveform using oscilloscope

➢ **C Programming Teaching Assistant, Purdue University, Indiana**   Spring 2017
  ❖ Conduct weekly lab session to teach fundamental of C programming

Relevant Projects

➢ **Autonomous Object-avoiding Vehicle**   (Check at https://seelio.com/jiaenchua)   Spring 2017
  ❖ Code complex real-time C program to recursively store directions and perform reverse motions
  ❖ Manipulate 9S12C microcontroller's pulse width to control speed of motor
  ❖ Implement ATD and RTI to convert infrared sensor's analog signal to digital signal

➢ **Reminder Mobile Application**   Spring 2017
  ❖ Record GPS location and prompt notification upon change of coordinates

➢ **Search Interface**   Fall 2016
  ❖ Invent algorithm to improve time complexity of search
  ❖ Design elegant user interface to improve user's experience

➢ **Coloring image processing**   Fall 2016
  ❖ Convert color images to monochrome via Adaptive Thresholding
  ❖ Improve efficiency through parallel programming (pthreads)

Research:

➢ **Visual Data Analytics**   Fall 2017
  ❖ Extract public's tweets in a region and report on condition of natural disaster

➢ **Technology Assisted Dietary Assessment**   Fall 2016
  ❖ Display nutrition data from a captured food picture

Technical Skills:

Data Structure, Strong C++ coding experience in Linux, CAN protocol, VHDL, FPGA, LabView, Code Optimization, Professional Communication Skill, Poco, HTTP, RestAPI