Jia En Chua

CURRENT ADDRESS
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Objective

To obtain a computer engineering internship position in 2017/2018.

Education

Purdue University, West Lafayette - Bachelor of Science in Computer Engineering   Fall 2018

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++, Java, 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 to trigger Xilinx and perform synthesis for Verilog design
  - Implement algorithm to optimize block arrangement in a circuit design
  - 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
- **Research Assistant, Purdue University, Indiana**   Fall 2016
  - Develop a fitness mobile application (Both front and back end)
  - Generate program to calculate calories burnt based on steps and time taken
- **C Programming Teaching Assistant, Purdue University, Indiana**   Spring 2017
  - Conduct weekly lab session to help a class of 20 students debugging and clarifying ideas

Relevant Projects

- **Autonomous Object-avoiding Vehicle** (check it out 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)
- **Simple Computer**   Fall 2016
  - Design and implemented CPLD-based simple CPU via Assembly
  - CPU generates BCD Adder and performs simple ALU functionality

Technical Skills: Spring 2017

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