

ARMAAN KAFAIPOUR

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EDUCATION

San Diego State University
BS Computer Engineering

San Diego, California
August 2016 - May 2021

EXPERIENCE

Schneider Electric
Software Intern

Lake Forest, California
May 2019 - August 2019

- Worked with a small team of interns and senior developers to integrate open62541 (An open source C99 implementation of OPC UA) into company's TI RM57L843 Microcontroller.
- Configured and debugged a TCP client and server and UDP PubSub messaging in Visual Studio.
- Removed Windows dependencies from open62541 so that it could be built on company's microcontroller in the Green Hills IDE.
- Worked to configure open62541 to use company's preexisting UDP functions instead of WinSock functions.
- Supported test engineers with upgrading firmware in production modules.
- Received NFPA 70E HV and LV Electrical Safety certification.

Schneider Electric
Embedded Software Intern

Lake Forest, California
May 2018 - August 2018

- Worked to test and prove whether FreeRTOS could successfully replace company's current embedded RTOS running on a TI RM57L843 Microcontroller.
- Installed and configured FreeRTOS on the TI Development Kit.
- Ported functioning FreeRTOS onto existing production module to replace current RTOS.
- Worked with Green Hills probe and digital oscilloscope during development and debugging.
- Ported raw data obtained from customer site into Excel to allow for efficient sorting and filtering.

PROJECTS

Company Web Application *Microsoft Visual Studio*

Developed a company web page using C# and ASP.NET. Created a simple master page as well as a home page, a help desk page, and an employee directory page. Help desk submissions are stored in a MySQL database using phpMyAdmin. The employee directory page displayed all employee information that was retrieved from the database.

Bookstore Order Form *Microsoft Visual Studio*

Designed a GUI for a bookstore application using Windows Forms. Created a customer form, an order form, a book form, and a menu form. The data in these forms is stored in and read from a MySQL database using phpMyAdmin.

Page Replacement Simulation *Microsoft Visual Studio*

Virtual memory simulation tool that compares random, FIFO, LRU, and PER page replacement algorithms. Written in C#.

SKILLS

Proficient in: C, C#, Verilog
Experience with: HTML, CSS, Bash, MySQL, MATLAB
Familiar with: C++, Python

RELEVANT COURSEWORK

Algorithms and their Analysis

Algorithms for solving frequently occurring problems. Analysis techniques and solutions to recurrence relations. Searching and sorting algorithms. Graph problems (shortest paths, minimal spanning trees, graph search, etc.). NP complete problems.

Operating Systems

File systems, processes, CPU scheduling, concurrent programming, memory management, protection. Relationship between the operating system and underlying architecture