ALFONSO DIAZ

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EDUCATION

SIMON FRASER UNIVERSITY (SFU), BURNABY, BC — SEP 2013 – PRESENT

- Bachelor of Applied Sciences – Electronics Engineering

TECHNICAL SKILLS

NETWORKS

- SonicWall firewall security
- Packet data analysis: Cain&Able, Wireshark
- VLAN interfaces
- HP ProCurve Switch Configuration
- Digital Certificates

SOFTWARE

- Web Development: MeteorJS Platform, HTML, CSS, Bootstrap
- C++
- MySQL, MongoDB
- AutoHotkey
- Control System Simulation: MATLAB
- VHDL: Altera Quartus II, ModelSim
- IDE: MS Visual Studio, Eclipse
- LTSpice, Eagle, Keil µVision
- OS Troubleshooting: Linux, Windows 7, 8.1 and 10

HARDWARE

- Oscilloscope
- Function Generator
- Digital Multimeter
- SMD Soldering
- FPGA logic circuit design
- PCB Assembly

WORK EXPERIENCE

IT SUPPORT – FARMACITY — DEC 2016 – JAN 2017

- Troubleshooted multiple terminals from problems due to software incompatibility causing issues with connection to the local server and MySQL database
- Provide support during and after renovation of the site to ensure all the systems were operating properly

JR. NETWORK ADMINISTRATOR (CO-OP) – GLENTEL INC. — AUG 2015 – APR 2016

- Remote troubleshooting and management of SonicWALL firewall devices ensuring network stability and security in locations across Canada
- In charge of billing coding and supervision of multiple account transfers and cancellations allowing a smooth transfer of ownership from Glentel to 3rd parties
- PCI Compliance management for individual store networks and internal Burnaby Head Office
- Created and updated billing and procedure documents for efficient use by future Co-op students

PHARMACY ASSISTANT MANAGER – FARMACITY — JUN – SEP 2012 / 2014

- Involved in all areas of the establishment such as administration, product selling, and supervising suppliers to earn experience in multiple areas of a business
- Introduced new inventory software system (SAV) by tutoring and supervising employees to improve efficiency and prevent money leaks

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PROJECT EXPERIENCE

SYSTEM BUS AND CUSTOM INSTRUCTIONS – DIGITAL SYSTEM DESIGN   MAR – APR 2017

- Designed the logic block diagram for an Avalon Bus master integrated into the processor's load store unit, then implemented it in VHDL
- Created timing diagrams to present relationships between all control signals
- Implemented three bit manipulation instructions: Count Leading Zeros, Population Count and Byte Swapping
- Tested implementations on the Altera Cyclone IV E FPGA Board using Altera Quartus II

C++ TOKEN CLASSIFIER & ABSTRACT SYNTAX TREE – SOFTWARE DESIGN AND ANALYSIS MAY – JUL 2016

- Wrote a Tokenizer for a C-language compiler using Eclipse IDE to classify the tokens and built an Abstract Syntax Tree for a subset of C-language from the classified tokens
- Traversed the Abstract Syntax Tree to regenerate the source code

PERSONAL PROJECTS

CRYPTOGRAPHY & ONLINE SECURITY EDUCATIONAL WEBSITE   OCT 2016 – PRESENT

- Created an open and free source of information on privacy and online security for everyone
- Built website with Bootstrap, MeteorJS, HTML and CSS, in collaboration with a Software Systems student using version control
- Integrated a Password Strength Meter and Random Password Generator using open source packages

R2D2 ASSISTANT   JAN – FEB 2015

- Hacked an i-Spy Tank, by analyzing transfer of data between the tank and a mobile device in order to use an independent program to control it using commands
- Tracked packets of data through Wireshark to examine which ones were being sent and received to specific ports
- Wrote a program with MS Visual Studio for the tank to behave as a personal assistant such as R2D2

SETUP AND MAINTAINED MULTIPLE SERVERS   MAY 2014

- Set up an HTTP server using Apache 2.4 to test skills and visualize appearance the webpage of FarmaCity
- Set up an FTP server through FileZilla software, both server and client, as a central storage for multiple users
- Set up an IRC server using Kiwi software as the main way of communication for the SFU Engr. Club Microtek

COMMUNITY ENGAGEMENT

MENTOR – LET'S TALK SCIENCE   MAY 2014 – AUG 2015

- Mentored and judged 1st year students by helping them generate ideas for their FIC Science Fair projects
- Taught monthly Chemistry and Physics classes to 50 children in grades 1-5 to encourage interest in science
- Enhanced communication and teaching skills by mentoring people from all ages

ENGINEERING LEADER – APPLIED SCIENCE, TECHNOLOGY AND SOCIETY   MAY 2013 – AUG 2013

- Lead and coordinated team of peer engineers through completion of a course project
- Designed and tested our prototype of a Heating Thermos to measure the energy required and provided