Matthew R. Hubbard

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Education

Pursuing a B.S. in Computer Science, Mathematics Minor – Portland State University – Sept 2016 – Present Associate of Applied Arts in Audio Production – The Art Institute of Seattle – Graduated December 2013 Two semesters pursuing a B.S. degree in Mathematics – Boise State University – August 2010 – March 2011 Two summer workshops in Video Game Programming – Digipen Institute of Technology – June 2008, 2009

Skills and Abilities

Programming

Languages: The languages I'm strongest in are C++, Java, and Python.

Data Structures: I've implemented BSTs, 2-3 trees, hash tables, graphs, lists, stacks, queues, LLLs, DLLs, CLLs, and array of LLLs.

Concepts: I'm experienced with functions, conditionals, loops, recursion, file IO, classes, inheritance, upcasting, downcasting, RTTI, dynamic binding, exception handling, and operator overloading.

Linux CLI

I'm comfortable operating in a Linux shell environment, navigating and manipulating files and directories. I have experience with command piping, ssh, sftp, screen, tar, chmod, grep, less, find, ps, htop, service, nmap, make, git, gdb, valgrind, and vim.

Projects and Accomplishments

IRC Networking Bot (Python)

I created an interactive IRC bot in Python that would display information about servers in the Computer Action Team's Catacombs. It included information about who owned what servers, IP addresses, vlans, ping latency, what IP addresses were available, as well as project ideas with associated difficulties.

Arduino Robot (Arduino C++)

For this project I used an Arduino Uno microcontroller to create a locomotive robot named Geordi. Geordi moved around by using a L293d motor driver IC via continuous track treads and was powered by AAA batteries. Coding was done in a C++ based language.

Print Script (Bash)

I wrote a Bash script utilizing the lpr command that would print a test page to each of the network printers.

Computer Action Team Projects

Installed a rack mounted Ubuntu Server 16.04 LTS.

Made a TFTP server and set up a Cisco switch command scheduler to automatically backup configuration files. Reloaded IOS 12.2 and installed a Cisco 3750 switch into an existing switch stack with multiple vlans. Installed and configured DNS and DHCP servers.

Wired computers to network switches and added hosts to the MCECS network database.

Dean's List | Portland State University | Fall 2016, Winter 2017

Employment Record

Technical Course Support Specialist (TCSS) | Portland State University | September 2017 - Present

I assist in labs for CS202 Programming Systems as well as tutor for CS162, CS163, and CS202 homework recitations. I answer questions and provide small lectures when needed. Topics covered include various data structures, operator overloading, exception handling, and OOP concepts in C++ and Java. As well as Linux shell operations, vim, and GDB. In addition, I proctor and grade undergraduate coding proficiency demos.

Desk Operations Volunteer | Computer Action Team MCECS | September 2017 - September 2018

I worked at the front desk helping students and staff with IT problems. I activated new user accounts, created and resolved support tickets, maintained lab printers, added hosts to the network, and attended weekly Braindump seminars on various IT topics.

Senior Broadband Technician | Image Broadband/Comcast | January 2016 - June 2016

Servicing customers with cable TV, internet, and phone. Running cable through conduit and aerial drops from telephone poles. Installing cable outlets, boxes, and modems. I troubleshooted service issues by utilizing signal generators and analyzing signal metrics.

Part Time Installation Technician | Custom Business Solutions, Inc | November 2015 - December 2015 Installed computer POS systems, cash registers, and receipt printers at local restaurants.

Head A/V Technician & Events Associate | Bainbridge Island Museum of Art | March 2015 - September 2015

I worked with the Executive Director, Events Manager, Educational Director, and the Facilities and Operations Manager to maintain and run A/V equipment for events. I was also in charge of locking the museum after close.

Manufacturing and Electronics Tester | Bottlehead | February 2015 - August 2015

Assembling part bags, cutting wire, wrapping transformers, and testing vacuum tubes and guitar amplifiers.

Assistant Distiller and Tech Support | Bainbridge Organic Distillers | January 2015 - June 2015

Assisted in the distilling process and resolved computer problems. I programmed custom excel spreadsheets.

Assistant Winemaker | Eagle Harbor Winery | September 2014 - December 2014

Assisted throughout the winemaking process from grape to bottle.

Audio Visual/Lighting Tech | Audio Visual Factory | May 2014

Working in teams to ensure projectors, stage lighting, and wiring was installed professionally for large events.

Webcast Supervisor and Sound Engineer | Clatter & Din | September 2013 - March 2014

I was in charge of setting up webcasting events via Livestream and ensuring smooth playback over the internet.

Electronic Concierge | Freelance | November 2011 - February 2014

Setting up home theater systems, TV's, computers, printers, wireless networks, and general computer repair.

Audio Director | "The Right Way" Short Film | October 2013 - February 2014

I managed a small team of boom operators. I was in charge of all production and post production audio needs.

Internship | Clatter & Din | June 2013 - December 2013

Shadowing world class audio engineers and maintaining day to day studio operations.

Sales Associate | Island Electronics/Radioshack | July 2008 - August 2010, November 2011

I worked selling electronics and troubleshooting customer's problems. I was also in charge of opening and closing procedures and I was a Verizon contract phone representative.

References

Karla S. Fant | Senior Instructor | Portland State University

Cell: 503-725-5394 | Office: FAB 120-19 | Email: KarlaF@pdx.edu

Iosh Olivias | Supervisor | Image Broadband/Comcast

Cell: 530-524-8748

Marissa Cleveland | Events Manager | Bainbridge Island Museum of Art

Office: 206-451-4006 | Cell: 757-303-4281 | Email: Marissa@biartmuseum.org

Emily Parsons | Owner | Eagle Harbor Wine Company

Cell: 206-291-3093 | Email: Emily@ehwineco.com

Will Williams | Client Services, Internship Coordinator | Clatter & Din

Cell: 206-625-1621 | Email: Will.Williams@clatterdin.com