

Andrew Ketcham, CPA
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EDUCATION

University at Buffalo, State University of New York

Bachelor of Science in Computer Engineering, GPA: 3.98/4.0

Master of Science in Accounting, GPA: 4.0/4.0

Bachelor of Science in Accounting, GPA: 3.98/4.0

Expected December 2018

May 2015

May 2014

TECHNICAL SKILLS

Proficient: C++, Java, Easytrieve, Windows OS, Linux/Ubuntu, Eclipse, Version Control (GIT), Atom

Experienced: COBOL, HTML, CSS, JCL, Python, SQLite

Currently Learning: C, Assembly (MIPS), Machine Language (MIPS)

PROJECT EXPERIENCE

8 Bit Computer (Hardware Project), Current

- Implementing programmable 8-bit computer including clock, registers, arithmetic and logic unit, RAM, program counter, output, and busses
- Developing knowledge of electronics, including implementation of transistors, resistors, and capacitors in the creation of logical gates and computer architecture

Infrared Motion Detector (Arduino), Current

- Implementing infrared motion detector using Arduino Yun to notify a user via SMS that their pet, or an intruder, has crossed an entryway

15-Puzzle Solver (Python, SQLite), Fall 2017

- Using knowledge of Artificial Intelligence search strategies, implemented A* Search in Python using the pattern database heuristic to solve the 15-Puzzle problem
- Used SQLite to store pattern database and key read using search states to estimate best path to the goal state

Personal Website (HTML/CSS), Summer 2017

- Developed fully functional website, without pre-built template layouts, using the Bootstrap HTML, CSS, and JavaScript framework. Website is mobile-friendly and automatically changes layout as screen size varies

GLADOS Nanosatellite Flight Software (C++), Spring 2017

- Designed C++ function to receive and queue image command requests to the satellite through use of vectors, mutexes, and multithreading (pthreads). Used C++ priority queue to store commands
- Improved project management skills through use of shared Github code base, including pushing, pulling, and committing project changes through use of branches

Clue Game (Java), Fall 2016

- Although project was completed for required coursework, currently implementing computer-controlled AI players using knowledge gained from current Artificial Intelligence coursework
- Implemented a board consisting of the various components of the game (players, hallways, doorways, rooms, etc.) using knowledge of Java abstract data types and object-oriented programming
- Implemented fully-functional GUI, holding players' dice roll, cards, and guess results

WORK EXPERIENCE

M&T Bank, Buffalo, NY

Technology Intern, Deposit Operations, June 2017 – August 2017

- Created four reports using Easytrieve and JCL that identified 1.7M accounts having an issue with statement delivery, and used complex logic and arrays to distribute accounts to various outputs. This project included the migration of over 30 different scripts to production
- Opened four new change tickets to gain an understanding with real-world test, certification, and production migration processes, including testing changes and documenting results

Pricewaterhouse Coopers, LLP, Buffalo, NY

Risk Assurance Associate, July 2015 – June 2016

- Led review of banking client's compliance with Regulation DD, including performing walkthroughs, obtaining evidence of compliance, leading a team of 8 testers, and communicating exceptions to client management
- Tested and documented tests of clients' Information Technology General Controls (ITGCs) in the areas of access to programs and data, program change, program development, and computer operations