E. ADAM PAYZANT

Computer Science, Carleton University (2017-2021)

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EDUCATION

Bachelor of Computer Science

Carleton University

September 2017 – June 2021

EXPERIENCE

First Year Mentor

School of Computer Science

Sept 2020 – Dec 2020 Ottawa, Ontario, Canada

- Lead a study group to aid first year CS students in their programming classes and acclimate to school life during the COVID–19 epidemic

Competed in CUHacking

Major League Hacking

Jan 2020 – Jan 2020 Ottawa, Ontario, Canada

- Worked in a team to develop a program to identify butterflies using a convolutional neural network with keras and tensorflow and webscraping to get a large data set to train with

Director of Academics

Carleton Computer Science Society

May 2019 – Apr 2020 Ottawa, Ontario, Canada

- Prepared various talks such as a guide to developing personal projects, an introduction to machine learning, and in-depth Linux usage
- Organized larger events such as a 36 hour game jam, an event where participant teams have 36 hours to develop a video game

HERE Internship

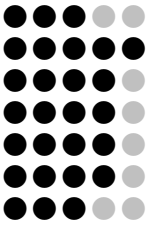
Oak Ridge National Laboratory

May 2018 – Aug 2018 Oak Ridge, Tennessee, USA

- Developed research software to analyze high temperature alloy corrosion patterns using Python and common libraries such as Numpy, SciPy, and Matplotlib for parameter optimization

PROGRAMMING LANGUAGES

C
C++
Python
Bash
Javascript
Lisp Family
Java



ADDITIONAL SKILLS

- Object-oriented, Functional, and procedural programming paradigms
- Database management techniques in both SQL and NoSQL systems
- Utilities such as git, gdb, valgrind, Docker, and package managers
- Developing for and working in Linux (Arch and Debian families), Mac OS, and Windows
- Optimizing code using parallelization, memory management, and efficient data structures
- Developing in a team using design patterns and system decompositions while following an Agile workflow
- Clean code and documentation practices
- Designing a secure system and analyzing for vulnerabilities
- Networked computing with Remote Procedure Calls (RPC); Networked File Systems, distributed databases, distributed shared memory
- Machine learning theory (Linear Regression, Decision Trees, Neural Networks) and implementation technologies (Keras, TensorFlow, scikit-learn)
- Computer vision using OpenCV

INTERESTS

- AI and Machine Learning
- Computer vision
- System and Network Security
- Remote and distrubted computing
- Embedded programming
- Parallelization theory, specifically with regards to cluster computing

PROJECTS

QMK Toolbox Linux Port

- Developed a Linux port for a popular application that packages multiple microcontroller flashing utilities and tracks USB devices to create a simple and uniform user experience

UMLify

- A smaller program that, when passed a C++ project folder, will develop a UML class diagram and convert the header files into the diagram while still preserving functionality

SCAPES

- Worked in a team of four to develop a reduced instruction Assembly-like programming language and an IDE