DAVID MITRE

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Personal Portfolio: https://DavidCMitre.github.io

EDUCATION

Northeastern University Boston, MA — September 2020 - Present
Khoury College of Computer Sciences — Expected December 2023
Candidate for Bachelors of Science in Computer Science — Dean's List, GPA: 3.98/4.0
Relevant Courses: Object Oriented Design, Algorithms & Data, Networks & Distributed Systems, Artificial Intelligence, Computer Systems, Fundamentals of Digital Design, Software Development

Harvard University Summer School Cambridge, MA — June 2019 - August 2019
Course Taken: Intensive Introduction to Computer Science with Java — GPA: 4.0/4.0

Eric Hamber High School Challenge Program Vancouver, BC — September 2016 - June 2020
Relevant Courses: Self Directed Programming, Intro to C++, Intro to Python, AP Calculus — GPA: 3.97/4.0

SKILLS

Languages: Java, C++, Python 2/3, MIPS Assembly, SQL, Racket, Lean
Software: Eclipse, IntelliJ IDEA, Visual Studio Code, Atom, Git
Libraries: JUnit testing, Swing GUI, Numpy, Pandas, Matplotlib, Gson
Operating Systems: Windows, Linux, MacOS

PROJECTS

Image Editing Software — October 2021 - December 2021
Course Group Project — *Object Oriented Design*

- Utilized Java with extensible and safe coding practices to accommodate biweekly feature additions
- 100% of specified features produced within strict deadlines, including: tone-mapping, channel visualization, image transformation, and Voronoi mosaics
- Took ownership and design responsibility of the underlying model of the image editor as well as the Voronoi mosaicing and visualization features
- Pair programmed with alternating lead, set up meetings, and communicated effectively to optimize productivity

Live Location-Based Bus Tracking — February 2020 - June 2020

- Completed using API integration and Java Native Access and Swing GUI elements
- Adapted to language constraints and project obstacles by integrating C# code into a Java program to be able to access location services on a Windows device
- Used Translink's real-time transit API to show bus stops and arrival times near user using JSON values
- Incorporated user feedback to improve the existing prototype in continuous design process
- Extended capabilities of project to include local database caching to allow viewing bus data while offline

MySQL Student Database — September 2019 - December 2019

- Created a student, course, and professor database alongside a GUI program managing the database
- Completed using mySQL, Java and Swing GUI
- Used joins, prepared statements, selects, and Primary/Foreign keys to allow creation of students, teachers, and courses, as well as having teachers teach sections of a class, assigning students to classes, and more
- Formed using concepts of Model, View, Controller architecture
- Avoided SQL injection attacks using safe procedure such as sanitizing input
- Created actionable user stories through the GUI, and protection against unexpected and unintended usage

INTERESTS

Practicing Karate, Genetics, Community Volunteer Work, NBA Basketball, Album reviews