

# Xavier Character

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## Summary

An Agile/Scrum oriented college student looking to gain experience in the field of software development. I want to provide value by acquiring and leveraging domain knowledge while applying my academic experience to achieve customer and business goals.

## Skills

- Java
- Python
- C
- SQL
- UNIX/Linux
- HTML 5 & CSS
- Shell Scripts
- MS Power BI
- MS Access Development
- Agile/Scrum Operations

## Education

### BOISE STATE UNIVERSITY

- Major: Computer Science
- Minor: Mathematics
  - College of Engineering Dean's List
  - Current BSU GPA: 3.5
  - Anticipated Graduation: Spring 2024

### ARCHBISHOP RIORDAN HIGH SCHOOL

- General Education
- National Honor Society

## Leadership and Extra Curricular Activities

- Boise State Blue Thunder Marching Band (Drumline)
- Archbishop Riordan High School Football (Varsity Quarterback)
- Archbishop Riordan High School Marching Band (Drumline Captain)
- Archbishop Riordan High School Basketball, Track and Field

*(Please see attached appendix for development experience)*

## Appendix

### Development Experience

- Java (Top 3 of 19)

Program Name	Program Description
Hashing Test	I created a Hash Table data structure and developed automated testing that confirmed data insertion and compared searching speeds using various data types.
Circuit Tracer	The program uses a brute force algorithm to find the most efficient paths on a "Circuit Board".
Minecraft Modification and Multiplayer Server Admin	Using Java, I modified Minecraft ("sandbox" user game) by creating and editing new and existing objects. I was the server administrator and was responsible for configuring server functionality.

- Python (Top 3 of 11)

Program Name	Program Description
Recommender	The program gives book recommendations from a set of data provided by users and calculates the average ratings of the books.
Gerrymandering	The program detects probable gerrymandering within a state using data provided by a user via a formatted text file.
DNA	The program reads data (genetic sequences) from a formatted text file and determines if the genetic sequences are proteins.

- C (Top 3 of 21)

Program Name	Program Description
Online Shopping Cart	A user selects their desired items and the program creates an invoice based on the same items.
Gradebook	This program creates a sorted grade book using student and grade data provided by a formatted text file.
Playlist	The program creates a playlist that can add, change the position of, and delete songs from said playlist.

- SQL (Top 3 of 3)

Program Name	Program Description
School Management System/Class Registry	Using MySQL, I designed a mock school management system, where CRUD operations for students, teachers, and faculty are supported.
Gene Bank Search Database	Using SQLite, I added the results of a gene bank search to a database and generated query results for spreadsheet manipulation.
Who Am I?	Using SQL for querying and MS Power BI for data visualization, this program creates genealogy reports for analysis purposes.

Appendix cont.

## Personal Projects

- Java
  - Directory Copier
    - This program takes two directories (a source and destination) and copies the contents of the source directory into the destination directory.  
**Value Statement:** I wanted to find a solution to copying entire directories without having to constantly drag and drop files everywhere. With my program, I was able to do some much-needed hard drive cleanup in a more efficient manner, as well as having total control of where I am sending my files.
  - Matrix File Format Checker
    - This program checks the format between two files that contain matrix data, only accepting the files that fit a specific format.  
**Value Statement:** The purpose of this project was to have a program that will check the various matrix input files versus having to reiterate the solution across multiple assignments.
- Python
  - Composer.py
    - This program takes the information given from two input files and produces a chord progression as well as a small solo piece from user input.  
**Value Statement:** I wrote this program as a small demonstration for my university jazz history class. Since my professor was intrigued by computer science and programming, I put together this musical program and we played the output chords and solo piece.