

Elijah Ballard

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EDUCATION

University of Maryland, College Park, Maryland

Bachelor of Science, Computer Science, Minor in Public Leadership

Relevant courses: Object Oriented Programming I (*Java, Python*), Object Oriented Programming II: Data Structures (*Java*), Introduction to Computer Systems (*C, Emacs*), Discrete Structures, Applied Probability, and Statistics I (Some *R*), Algorithms, Organization of Programming Languages (*Ruby, Python, OCaml, Rust*), Web Application Development (HTML, CSS, JavaScript), Introduction to Artificial Intelligence

SKILLS

- **Programming Languages and Software:** Java, C, Ruby, MatLab, HTML, CSS (React, Tailwind, Bootstrap, Node.js & Express), JavaScript, Python, Processing, Arduino

PROGRAMMING EXPERIENCE

Java

- Designed and manipulated a Java class hierarchy to simulate a round of *Texas Hold Em*.
- Managed a media rental program that allowed for the input and output of media to consumers
- Conducted a virtual bus terminal using a hashing data structure that stored each customer's profile and was linked to a corresponding bus
- Created and facilitated a "Tikface" social media app through the implementation of hashing and graphs

C

- Developed a program that accurately scans the lengths of every line and checks for tab characters to adhere to company programming style guidelines
- Built a "Nelovo" machine using a doubly linked list data structure and manipulation of bits to translate opcode instructions and assembly code from the CPU processing system

HTML/JavaScript

- Divided into a front and backend team, worked together to develop a web page for a local nonprofit in the area using web development skills
- Designed and developed local "Terp Store" using Ajax framework to allow for interactive UI to place orders
- Researched with a professor to create a portfolio for lab results using frontend and backend technology as well as implementing Flask framework

Ruby

- Managed phonebook with a complex class hierarchy that inserts and deletes users manually through object-oriented design
- Constructed a game board system utilizing inheritance properties to simulate a popular Battleship video game for user

WORK EXPERIENCE

Programming Counselor, TIC Summer Camp, Bethesda, Maryland

June 2023 - Present

- Instructed and mentored campers in creating custom mods using MCreator and Scratch, emphasizing coding principles and creativity.
- Led hands-on STEM activities, including building and programming circuit cars using Arduino IDE and C++, to enhance technical and problem-solving skills.
- Utilized Processing software with Java to guide campers in designing and coding their own version of the Pacman video game, reinforcing object-oriented programming concepts and interactive design skills.

Barista, Vigilante Coffee, College Park, Maryland

September 2021 - Present

- Interact directly with dozens of customers daily to guarantee optimal, personalized experiences
- Efficiently craft beverages and food items while maintaining a high standard of quality
- Manage multiple tasks at once while collaborating with coworkers to provide efficient service to all customers