

# Eric Feng

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## EDUCATION

University of Maryland, College Park | Bachelor of Science in Computer Science

Expected May 2024

Montgomery Blair High School | High School Diploma, Magnet Diploma

May 2020

### Relevant Coursework

- Object-Oriented Programming, Algorithms, Web Application Development with JavaScript, Introduction to Computer Systems, Discrete Structures, Organization of Programming Languages, Data Structures, Introduction to Data Science

## PERSONAL PROJECTS

### Personal Portfolio, HTML + JavaScript + CSS

2023

- Developed a responsive personal website utilizing **HTML**, **JavaScript**, and **CSS** to showcase my software engineering projects, technical skills, and professional experience.

### The Effect of Per Game Stats on the Modern Era NBA Teams Win Percentage, Python

2023

- Created a tutorial that walked users through the entire **data science pipeline**: data curation, parsing, and management; exploratory data analysis; hypothesis testing
- Pulled NBA data from an online **database**, used tools such as **NumPy**, **pandas**, and **beautifulsoup** to organize, analyze, and draw hypotheses with the data

### Unix Simulator, C

2022

- Simulated Unix system in **C** where there existed a root directory, additional directories and files which users could add/modify, and functions such as getting the path from the current directory to root
- Written using **dynamically allocated data structures**, implemented concepts such as **memory allocation** and **memory deallocation**, and searching algorithms such as **DFS** and **BFS**

### Six Degrees of Kevin Bacon, Java

2022

- Simulated a web of profiles on social media using **graphs** in **Java**
- Performed operations such as finding the least amount of connections between two profiles (implemented using **DFS**) and finding all first connections (implemented **BFS**)

### MicroOcaml Interpreter, OCaml

2022

- Constructed a version of **utop** (a top-level for OCaml that runs in the terminal)
- Used **lexer** and **parser** to process and execute commands along with implementing an interpreter

### Testudo Tips, React + Firebase

2022

- Constructed an online forum where users were able to share and interact with each other's posts
- Interactions included commenting and upvoting other user's posts

### Battleship, Ruby

2022

- Recreated the board game Battleship played on a dynamically sized gameboard using **Ruby**
- Implemented functions using **RegEx** and **file processing** such as figuring out if the coordinates of a ship were valid, and attacking the opponents' ships
- Implemented a `to_string` function which creates a graphical representation of the board

## PROFESSIONAL EXPERIENCE

### Mobile Development Intern

2017

National Institute of Health | Bethesda, MD

- Developed a 2D educational game for iOS devices that taught users about environmental health and toxicology using **Swift**
- Worked with a 3 person team to implement physics (how sprites would collide and interact) and graphics of the game

### Counselor in Training

2018

Stonebridge Sharks Swim Team | North Potomac, MD

- Organized events such as spirit days and swim meets with other CITs, created goal cards and lineups for swimmers, and developed communication skills which helped in a team-based environment
- Mentored younger swimmers to better their technique through stroke correction and guidance, motivated and encouraged them to perform confidently in a competitive environment

### Counselor in Training

2016

Bullis Summer Programs | Potomac, MD

- Developed communication and mentor skills through teaching entrepreneurship and astronomy class alongside certified instructors
- Ensured campers understood the material being taught in classes while maintaining a positive and encouraging learning environment

## SKILLS

**Languages:** Java, Python, C, JavaScript (&TypeScript), Ruby, OCaml, Rust, MATLAB, HTML, CSS, Swift

**CS Related:** Algorithm Analysis, Unix, OOP, Functional Programming, Low-Level Programming, Assembly

**Personal:** Fast learner, Analytical/problem-solving skills, Teamwork, Critical thinking, Communication, Public speaking

**Languages:** English, Mandarin Chinese, Spanish