

# JACOB IRELAND

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## Education

### Columbia University

Sep. 2020 – May 2024

*Bachelor of Arts, Columbia College*

*New York, NY*

- Major: Computer Science, GPA: 3.70, Dean's List
- Varsity Athlete, Captain of Men's Cross Country and Track and Field, competing as a 3-season NCAA Division 1 athlete (cross country, indoor track, outdoor track)

## Skills

**Languages:** Python, Java, C/C++, HTML/CSS, JavaScript

**Software:** React JS, WSL, Figma, Balsamiq, VMWare Workstation Pro, VS Code, Latex, Microsoft Workspace, IDA PRO, FakeNet

**Relevant Coursework:** Operating Systems in Linux, Advanced Programming in C, Programming Languages and Translators, Artificial Intelligence, UI Design, Malware Analysis and Reverse Engineering, Computer Science Theory, Fundamentals of Computer Systems, Data Structures in Java, Computational Linear Algebra, Intro to Java

## Projects

### Personal Website Portfolio | *JavaScript, HTML/CSS, React JS*

July 2022

- Developed a personal website portfolio that anyone can access to view my experience, projects, and career interests and launched it under the domain [www.jacobireland.org](http://www.jacobireland.org).
- Built in VS Code using React JS, Javascript, HTML, and CSS during summer 2022 as a personal project.

### Linux Scheduler | *C, Linux kernel, VMWare*

April 2023

- Developed a scheduler for Linux OS that implements a round-robin scheduling algorithm, SMP, and CPU load balancing so that it can run from startup as the default scheduler on a Linux device.
- Written in C on a Linux OS using a VM as a project in the class Operating Systems in Linux.

### Linux Filesystem Driver | *C, Linux kernel, VMWare*

May 2023

- Developed a filesystem driver for a Linux device that can create, delete, read, and modify files and directories.
- Written in C on a Linux OS using a VM as a project for the class Operating Systems in Linux.

### Spotify API Playlist Generator | *Python, Spotify Web API*

July 2022

- Developed a Python script that uses Oauth2 to authenticate a Spotify user and request their top tracks, artists, and genres to generate user-specific playlists in the Spotify users library.
- Written in Python implementing the Spotify Web API.

## Work Experience

### YMCA of NYC

June 2023 – current

*Properties Management Intern*

*New York, NY*

- Oversaw the roll out of the Asset Essentials work order management system across the 24 branches of the NYC YMCA.
- Managed a FAQ support document and responded to all questions and needs of the 24 YMCA branch managers and employees regarding the implementation of the Asset Essentials program.
- Developed a SharePoint site for the Association Office of the YMCANYC that incorporated Power Automate and Flow to generate automated emails, list and data entries, and analyze survey results.

### Columbia University

Sep. 2022 – Dec. 2022

*Teaching Assistant for Data Structures in Java*

*New York, NY*

- Instructed students on the understanding and implementation of essential topics and data structures in Java including stacks, queues, array lists, linked lists, trees, hash tables, time complexity, and sorting and search algorithms.

## Leadership / Athletics

### Men's Cross Country and Track and Field

Fall 2020 – Present

*Captain*

*Columbia University*

- Dedicate 20+ hours a week to practice and competition.
- 2023 Academic All-Ivy, Columbia Top-10 All-Time in the 3000 meter Steeplechase and indoor 5000 meter, Captain (2023-2024).