

# JACOB IRELAND

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## EDUCATION

### Columbia University

*Bachelor of Arts, Columbia College*

**Sep. 2020 – May 2024**

*New York, NY*

- Major: Computer Science, GPA: 3.69, 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, SQL

**Software:** React JS/Native, WSL, Figma, Balsamiq, VMWare Workstation Pro, VS Code, Latex, Microsoft Workspace, IDA PRO, FakeNet, Jupyter Notebook, Microsoft Power Automate, SharePoint

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

## PROJECTS

### MoodMates Mobile Application | *React Native, Backendless, JavaScript*

**November 2023**

- Performed contextual inquiries & user studies to inform creation of pixel-perfect Figma prototypes, utilizing user-centered design techniques.
- Collaborated with group to design and code React Native mobile application that allows users to connect with others in ways that align with their mood and energy.

### 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.

### 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.

### 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](https://www.jacobireland.org).
- Built in VS Code using React JS, Javascript, HTML, and CSS during summer 2022 as a personal project.

## WORK EXPERIENCE

### Project Management Intern

**June 2023 – current**

*YMCA of NYC*

*New York, NY*

- Created a website to act as a central location for communication between project management team and organization sub-branches, informing branches on project timelines, resources, and contacts.
- Built 10+ custom work flows using 3-tier database architecture to populate management database system with user-generated content for centralized collaboration between management team.
- Facilitated integration of a new software for daily use of all organization employees, training over 100 employees through guided walkthroughs and technical problem resolutions.
- Assisted with monitoring project progress, developing project plans, and coordinating project timelines between management, branches, and vendors.

### Teaching Assistant for Data Structures in Java

**Sep. 2022 – Dec. 2022**

*Columbia University*

*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

### Team Captain

**2023-2024**

*Men's Cross Country and Track and Field*

*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).