# **JACOB GUTIERREZ**

Las Vegas, NV | jgutier7@nd.edu | (702) 338-5481 | www.linkedin.com/in/jacob-c-gutierrez | Portfolio: JGUTIER7.GITHUB.IO

## **SUMMARY**

- Highly motivated computer science student with experience in C/C++, Python, and full-stack web development.
- Proven leadership and teamwork skills, demonstrated by managing teams and working 20 hours per week while maintaining a 3.3 GPA.
- Quick learner and adaptable, with a proven ability to rapidly acquire new skills and technologies in the software industry.

#### **EDUCATION**

## **University of Notre Dame**

Notre Dame, IN

Bachelor of Science, Major: Computer Science, Minor: Engineering Corporate Practice

August 2020 - May 2024

- Cumulative GPA: 3.3/4.0
- Consistently worked the maximum 20 hours/week as a student manager for various on-campus eateries
- Relevant Coursework (in progress): Data Structures, Embedded Systems, Discrete Mathematics, Operating System Principles, Database Concepts, Business and Engineering, Theory of Computing, Biometrics, Finance, Microeconomics, Machine Learning, Modern Web Development, Computer Vision

#### College of Engineering Study Abroad

London, UK, Summer 2022

- Spent the summer taking classes in the vibrant city of London, immersing myself into the culture and history of Europe, whilst attaining valuable communication and people skills
- Ideated potential solutions to infamous engineering disasters daily in a group setting

#### **Bishop Gorman High School**

Las Vegas, NV

Honors: Co-Valedictorian, AP Scholar with Distinction, Varsity Volleyball Captain, EG Club VP

August 2016 - May 2020

## **PROJECTS** (PERSONAL AND CLASS)

## bacND - A Social Drinking App:

- MySQL, Python, React Native, JavaScript
- Full-stack development for a student safety app regarding safe drinking habits using database integration
- Project planning, leadership, problem solving with team

## TuneTalk - A Music-Inspired Creative Exploration App:

- SQLite, Python, Flask, HTML, CSS, JavaScript
- Full-stack development for a creative platform that connects music with Al-generated content using OpenAI's GPT-3.5 API and Spotify API
- Solo project involving end-to-end planning, development, and problem-solving.

## **Unix File System:**

- C++, algorithms, B-trees, software design principles
- Developed a scalable version of the Unix File System

### **Heap Management:**

- C, memory management, fragmentation, free lists
- Developed advanced implementation of the malloc and free functions commonly used in C for dynamic memory

## Advanced Course Project – "Preternship" Software Engineer:

- C++, algorithms, recursion, hash table, doubly-linked-list
- Designed and implemented the project from scratch
- Leadership, project planning and management with team members

## **Pub/Sub Chat System:**

- C, concurrent programming, socket programming
- Implemented advanced networking features such as subscription to topics, publication of messages, and retrieval of messages from queues for message queue client library and chat application

#### PROFESSIONAL EXPERIENCE

## Chick-fil-A & Duncan Student Center - Notre Dame Campus Dining

Notre Dame, IN August 2020 - Present

Student Manager & Team Lead

- Doubled student-worker unit size, improving efficiency and making Chick-fil-A the most profitable campus dining location.
- Developed and maintained employee website using programming skills, collaborating with other managers for optimization.
- Promoted to Student Manager in January 2021 for dedication, leadership, and efficiency in a fast-paced environment.
- Led back-of-house team, ensuring quality and efficiency through strategic task assignment and prioritization.
- Trained and onboarded new student employees, coordinated schedules, and managed uniform logistics.

#### **SKILLS & INTERESTS**

Languages & Frameworks: C/C++, Python, HTML, Swift/SwiftUI, JavaScript, PHP, Linux/Unix, SQL (MySQL, PSQL), React Native, Flask

Tools & Software: GitHub, Microsoft Office, MATLAB, SolidWorks, Adobe Illustrator/Photoshop

Soft Skills: Problem-solving, teamwork, communication, adaptability, time management

Interests: Software development, machine learning, data visualization, photography, sports