# Ivan Nghi

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### **PURPOSE**

Driven, communicative, and diligent student looking to apply previous experiences and leadership abilities into work opportunities to gain a deeper understanding of software development and engineering. Cal Poly Men's Swimming.

### **EDUCATION**

Cal Poly, San Luis Obispo

**September 2021 - June 2025** 

B.S. Computer Science

GPA: 3.9 / 4.0

**Relevant Coursework:** Data Structures and Algorithms, Object-Oriented Programming, Linear Algebra, Discrete Structures, Computer Architecture, Systems Programming, Chem I, II, III, Intro to Databases

#### **WORK EXPERIENCE**

### Dick's Sporting Goods, Sales and Customer Service Associate

June 2023 - Present

- Managed equipment inventory for 500+ products, optimizing store accessibility and overall organization.
- Guided and assisted 200+ customers monthly, enhancing store navigation and customer satisfaction.
- Educated customers on golf clubs and team sports, resulting in a 15% increase in informed purchasing decisions.

# LEADERSHIP AND ORGANIZATIONS

# Cal Poly Men's Swimming, Division-1 Student Athlete

**September 2021 - Present** 

- Competed in 20+ swim meets, showcasing dedication and performance in collegiate-level swimming, while also orchestrating and organizing weekly team meetings for effective communication among 30 athletes.
- Collaborated closely with coaches and teammates to thoughtfully plan and optimize training schedules, resulting in improved individual and collective performance, enhanced team cohesion, and stronger competitive edge.
- Maintained a 3.8 GPA while managing rigorous training, competition schedules, and team leadership responsibilities, demonstrating strong time management and multitasking skills.

### **PROJECTS**

### **Binary Huffman-code Compression Tool**

- Achieved a 40% increase in file compression efficiency through developing a C-based Huffman-code compression tool utilizing integrated binary trees and bit manipulation techniques for seamless file encoding and decoding.
- Expertly incorporated both buffered and unbuffered I/O functions, amplifying operational speed and responsiveness. Introduced a proprietary sorting algorithm that led to superior compression ratios.

### **Frequent Word Filter**

- Skillfully employed C-based I/O functions to capture, analyze, and prominently display the top 100 most frequent words from a dataset of 50,000 records.
- Utilized a robust hash table with collision handling, expertly managing memory for handling extensive data samples and showcase an overall analytical approach and attention to detail in managing large-scale data.

## **House Defender**

- Conceptualized and executed an imaginative tower-defense game within the Java framework. Intricately merged 18 handcrafted pixel art assets to serve as integral game components. Employed an intricate blend of 10 diverse pathing strategies, all elegantly grounded in core principles of inheritance and interfaces.
- Delivered a mesmerizing user interface punctuated by 15 captivating timed effects and 8 strategically placed user-triggered actions. This dynamic synergy exemplified my adeptness in Object-Oriented Design, culminating in a compelling and interactive gaming experience.

**Skills:** Microsoft Office Suite, Java, C, Python, Node.js, Assembly, Leadership, Organization, Agile Development, RISC-V, ARM, Communication, Program Management