

# Dillan Merchant

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## EDUCATION

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**Masters of Science in Computer Science:** University of California, San Diego, BS/MS Program *Sep 2022 - Jun 2023*

**Undergraduate:** University of California, San Diego, Jacobs School of Engineering - Warren College *Present - Jun 2022*

**Emphasis:** Computer Science **GPA:** 3.7 **Standing:** Senior

**Relevant Coursework:** Data Structures, Software Tools (GitHub), Object-Oriented Programming/Design, Design/Analysis of Algorithms, Computer Organization and Systems Programming, Database System Principles, Recommender Systems/Web Mining, Computer Architecture, Intro to Computer Security

## WORK EXPERIENCE

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**Cubic Corporation, San Diego, CA – Software Engineer Intern** *Mar 2021 – Present*

- Working to improve connectivity/networks for natural disasters and military deployments
- Developed bash scripts to automate and facilitate testing of network nodes which cut testing time in half
- Handled network link adaptation, specifically calculation of power allocation to links based on environmental conditions in order to optimize power usage

**Cornerstone Community Consultants, San Diego, CA – Software Consultant** *Sep 2020 – Jun 2021*

- Responsible for full stack web development of YogurtWorld website to drive traffic and boost both customer satisfaction and user experience
- Improved Cornerstone Community Consultant's website by fostering a more versatile platform to be used across a variety of devices and screen sizes ultimately offering the user greater accessibility of the site

**SoftClouds LLC, San Diego, CA – Software Engineer Intern** *Jun 2020 – Sep 2020*

- Developed "AppManager", an app that facilitates the monitoring and managing of apps on Android devices to organize and optimize a user's storage
- Created the app documentation for user ease of use, designed the wireframes with InVision, and used Android Studio to implement the backend logic with Java and frontend with XML
- Published [AppManager](#) on Google Playstore

## SKILLS

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- **Skills:** Java, C, C++, HTML/CSS, JavaScript, Microsoft Office, MATLAB, Vim/Unix/Bash, ARM Assembly, XML, SQL

## ACADEMIC PROJECTS

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**Pomodoro Timer:** Built a web app with a team of classmates that consisted of the Pomodoro study technique along with a convenient task list to help others with organization and time management. Increased HTML/CSS/Javascript knowledge along with team bonding, organization, and efficiency in an Agile environment

**Huffman Encoding/Compression:** Created a lossless file compressing and uncompressing program in C++ that consisted of building a correspondent Huffman Tree and reading/writing through Bitwise I/O buffers

**Graphs:** Developed a proper data structure to represent a graph and performed algorithms such as Breadth-First Search and Dijkstra's Algorithm to provide shortest path information most efficiently

## LEADERSHIP EXPERIENCE

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**South Asian Culture Show/Charity, San Diego, CA - President, Choreographer, Website Coordinator** *Aug 2016 - Jun 2019*

- Led student run charity organization with approximately 150 participants which raised almost \$10,000 towards the Malala Fund and Akshaya Patra Foundations
- Maintained the organization's website changes and updates with new info, dances, links

**Holly's Garden Rescue, El Cajon, CA - Facebook Admin and Website Coordinator** *Aug 2015 - Jun 2019*

- Managed social media efforts such as Facebook and Instagram to advertise and promote rescue dogs which resulted in an increase of website traffic by 25% over the course of the year.
- Maintained a user- friendly website which included uploading and keeping current pictures and bio info for our available dogs, upcoming adoption events and success stories.