

# Nirmal Agnihotri

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## EDUCATION

### UC SAN DIEGO

COMPUTER SCIENCE, B.S.

Sept. 2019 - June 2023

Cum. GPA: 4.0 / 4.0

Provost Honors 2019-2021

## LINKS

 [Linkedin://Nirmal-Agnihotri](#)

 [Github://NirmalAgnihotri](#)

 [Webpage: //Nirmal's Page](#)

## COURSEWORK

### UNDERGRADUATE

- Advanced Data Structures
- Algorithm Design & Analysis
- Software Engineering
- AI Intro: Statistics
- Linear Algebra
- Theory of Computation
- Computer Architecture
- Algorithm Analysis
- Multivariable Calculus
- Data Structures & OOD
- Unix Tools and Scripting
- Discrete Mathematics
- Java Programming

## SKILLS

### LANGUAGES/TECHNOLOGIES

Java • C++ • C • Javascript  
Python • HTML5 • CSS3  
MongoDB • React Native  
ARM Assembly •  $\text{\LaTeX}$   
MATLAB • jQuery • Node.js  
Docker • REST • Markdown

### TOOLS

Git • Visual Studio Code  
Vim • IntelliJ • Shell  
Eclipse • Chrome DevTools

### OPERATING SYSTEMS

Linux • Mac OS • Windows

## PROJECTS

### FEEDING SAN DIEGO, DISTRIBUTION WEB APP

Dec 2020 - Present

- Currently a member of a 5 person team using the MERN stack to develop an internal, user friendly web app designed to help nonprofit Feeding San Diego better manage their food distribution.
- The app allows users to update, search, and view large amounts of information such as distribution schedules and agencies in need while being more UI friendly than the large Excel spreadsheet currently in use.
- Used REACT to implement front-end elements such as the searchable and filterable agency data table, navigation bar, and distribution schedule page.
- Used MonogDB to manage and create a database of agencies and distribution sites.

### UNITED WOMEN OF EAST AFRICA KITCHEN WEBSITE

Jan 2020 - May 2020

- Worked with a 5 person team to develop a website where customers of United Women of East Africa's Kitchen Service are able to order food.
- Utilized HTML5, Javascript, and CSS3 to create front-end elements such as a cart, menu, and an admin panel that provided a user friendly method to manage menu items.
- Used MongoDB and JQuery to create an orders table where site admins can view information about past orders, mark orders as complete, and filter orders by name, date or price.

### TEXT FILE COMPRESSION PROGRAM

Nov 2020

- Created a C++ program that compresses large text files such as DNA databases using a Huffman Encoding scheme to make them much more space efficient. Files are uncompressed for viewing by effiecntly reconstructing the Huffman Tree from the compressed file.
- The program utilizes Object-Oriented design, bitwise file I/O, and data structures such as priority queues and trees.

## ACTIVITIES

### CSE DEPARTMENT TUTOR

TUTORED COMPUTER ARCHITECTURE AND SYSTEMS, DISCRETE MATH

June 2020 - Present

- Worked directly with professors and course staff to create and grade homework and exams.
- Led discussion sections to practice and review material, held office hours, and assisted students with concepts and exam prep through one-on-one sessions.
- Was rehired for the Fall and Winter terms.

### TRITON SOFTWARE ENGINEERING

PRO BONO SOFTWARE ENGINEERING ORGANIZATION | DEVELOPER

Dec 2019 - Present

- Developed websites and applications for San Diego nonprofits. Worked in teams and used industry-standard tools and development practices.
- Currently part of a development team creating a distribution app for Feeding San Diego, a member of Feeding America.