

Dev Kapupara  
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### **EDUCATION:**

San Jose State University  
(Junior)  
Pursuing B.S in Computer  
Science and Applied Math  
San Jose, CA | Expected 2019  
SJSU Cumulative GPA: 3.88

### **SKILLS:**

Java • Python • JavaScript • HTML  
• CSS • jQuery

### **COURSEWORK:**

- Object Oriented Design in Java and Python
- Intro to Data Structures
- Data Structures and Algorithms
- Linear Algebra
- ODE and PDE's
- Applied Probability and Stats
- Combinatorics
- Discrete Math
- CALC I to III
- Physics I & II

### **LINKS:**

Personal: <https://devkapupara.github.io>  
Github: /devkapupara

### **EXPERIENCE:**

RUTGERS UNIVERSITY – CAMDEN LEARNING CENTRE | PEER  
TUTOR:

February 2015 – May 2015 | Camden, NJ

- Assist college level student in problem solving techniques, note-taking skills and time management.
- Subjects tutored: Discrete Math, Physics I & II, Python Programming, Pre-CALC, Intermediate Algebra, College Math, CALC I and CALC I for Bus, Econ & Bio

SAN JOSE STATE UNIVERSITY | LAB FACILITATOR:

October 2017 – Present | San Jose, CA

- Lab facilitator for Math 1005 course. Assist students with problem solving techniques, reinforcement of the topics learnt in lecture and handing out weekly quizzes.

### **PROJECTS:**

- Generic 2-3 Tree: A Generic B-Tree of order 3 that supports insertion, searching, adding from a collection, clearing, fetching the size of the tree and get an iterator for in-order tree traversal. Better than binary tree because leaves are guaranteed to be at the same height.
- Job Schedule: Creates a graph of jobs and then sorts it topologically using Kahn's algorithm to find the minimum amount of time required to finish the whole set, plus query the starting time for each job.
- File Searching: Performs a recursive depth directory search or a shallow directory search for all files. Then, filter results based on size/name/extension to the files found and then choose a specific operation like touch, duplicate scan the first line of all files found. (Python)
- N \* N Sudoku Solver with GUI: Implemented a N\*N Sudoku solver in Java that uses backtracking recursive algorithm to find solutions with the array in place.
- Maps.io: Utilizes the OpenStreetMap API to perform calls and parse the JSON files to gather data like directions, total distance and time, elevation and Geographic coordinates of 2 or more user entered places. (Java and Python)
- SuperMath: Uses Wolfram Alpha API to solve numerous Math Problems like solutions to ODE, Integration, Differentiation, Series and their Generating Functions, Solution to a polynomial, Eigenvalues and Eigenvectors of a matrix etc. (Python)
- Connect4 game implementation using HTML / CSS / JavaScript / jQuery.

### **ACTIVITIES:**

- Volunteer at SONC (Special Olympics of Northern California): As a coach and a scorekeeper for various competition organized by SONC like Bowling and Basketball.