Gaurav Dheeraj Kaliaperumal Kalidasan

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Education

University of California San Diego — San Diego, CA
Bachelor of Science in Computer Science — *Sep. 2019 – May 2023*

- 3.96/4.00 Cumulative GPA, 4.00/4.00 Major GPA
- Rising Junior, 4-time Provost Honors Awardee
- CS Coursework: Advanced Data Structures, Computer Organization & Systems Programming, Basic Data Structures & Object-Oriented Design, Introduction to Computer Science: Java I & II
- Math Coursework: Mathematics for Algorithms and Systems, Statistical Methods, Linear Algebra, Discrete Mathematics, Differential Equations, Calculus and Analytic Geometry for Science and Engineering

Chettinad Vidyashram — Chennai, India
AISSCE (Indian Equivalent to a High School Diploma) — *April 2017 – April 2019*

- SAT - 1530
- SAT Subject Test in Mathematics Level 2 - 800/800, Physics - 800/800, Chemistry - 800/800

Projects

Ruff - Automated Flashcard Maker | *Python, React, NTLK, spaCy* — Jan. 2021 – Present

- Collaborating with two individuals on developing a Web App that automates the process of creating Flashcards
- Employs Natural Language Processing to automatically identify and extract questions from input text/PDF effectively saving time wasted in manually creating Flashcards
- Developed the Application User Interface using Python and Created Animated Flashcards using React
- Nearing completion on Backend that uses NLP libraries to extract questions from input text.
- Aimed to be hosted by end of April 2021

File Compressor/Uncompressor | *C++* — Feb. 2021 – Mar. 2021

- Developed a program to compress and uncompress .txt files using principles of Huffman Coding
- Implemented an extremely space-efficient header that optimizes the header size to about 10*M bits, where M is the number of distinct byte values that actually appear in the input file

Graphs (Advanced Data Structures Project) | *C++* — Mar. 2021 – Mar. 2021

- Developed a class to represent the Graph ADT and perform myriad functions on them
- Created a parser for .csv files representing edges of a Graph and which creates its Adjacency List representation
- Implemented functionalities to find the Smallest Connecting Threshold, Weighted Shortest Path and Unweighted Shortest Path between two edges, and Connected Components of the Graph

Extracurriculars

Open Source @ UCSD — Jan. 2021 – Present
University of California, San Diego — *San Diego, CA*

- Part of a thriving Open Source Community at UCSD that contributes to and creates Open Source projects
- Working towards further fostering this community through assistance with quarterly projects, and workshops

Teacher Assistantship Program — June 2017 – Jan. 2019
Chettinad Vidyashram — *Chennai, India*

- Spearheaded and led a Teacher Assistantship Program that matched students with their senior schoolmates
- Actively optimized the process continually by training mentors with protocols for efficient and effective teaching
- Achieved an increase of about 30 points in mean average score in a group of 600 students across three grades

Technical Skills

Programming Languages: SQL, Java, Python, C/C++, JavaScript, HTML/CSS, R, ARM, SystemVerilog
Frameworks/Tools/Libraries: Git, Unix Shell, React, JUnit, Streamlit
Software: Intel Quartus Prime, ModelSim, Adobe Photoshop