

Santosh Lakshman

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Education

University of California, Santa Cruz Computer Science B.S.

Graduate in Dec 2022 4.0 GPA

Coursework: Data Structures and Algorithms, Database Systems, Networking, Full Stack Web Development, Computer Architecture (RISC-V), C++, Python, Assembly, Discrete Math, Linear Algebra, Differential Equations

Experience

Software Development Intern (Machine Learning, NLP) Sage

Jun 2021 – Sep 2021 San Jose, CA

- Developed an ML model which uses Natural Language Processing to match new questions with field experts
- Performed analysis on multiple supervised learning methods (Random Forests, K-Nearest-Neighbor, ...) and vectorization methods (Count, N-Grams, TF-IDF)
- Leveraged Python, R, and SQL experience to build out tools utilizing the Natural Language Toolkit, scikit-learn, numpy, and pandas in order to drive 10,000 MAU organically

Computer Science Tutor De Anza CIS Lab

Apr 2020 – Jun 2021 Cupertino, CA

- Reinforced student knowledge of data structures and algorithms
- Demonstrated strong knowledge in functional programming, OOP, recursion, pointers, etc.
- Helped students apply skills through projects, homework, and labs

Programming Lead and Club Secretary EV Robotics

Aug 2015 – May 2019 San Jose, CA

- Programmed award-winning FRC Robot using Java, Python, and OpenCV with a team of 15 people
- Managed a 400+ member organization which competed on the global stage at the World Championships
- Directed club activities, managed funds, and worked with sponsors
- Received FRC Engineering Inspire Award from FIRST for outstanding engineering

Projects

SayV – Android Application Java, Node.js, HTML, CSS, and Firebase

- Developed a panic button integrated into a P2P community-based alarm system
- Inspired by the alarmingly high rates of assault on college campuses
- Won Top 20 App and cash prize at Los Altos Hacks, one of the largest hackathons in the Silicon Valley

Endless Void – Side-scroller game C++, SFML (2D game library)

- Created a 2D spaceship combat game for CIS 22C course
- Contains procedurally generated levels, randomized obstacles, increasing difficulty, backdoors, and more
- Gained leadership experience through project coordination, applying CI/CD tools

TRVL Rideshare Assistant – FB Chatbot Python, API.AI, Facebook Messenger API

- Built an autonomous chatbot which lets you compare prices between ridesharing services
- Uses natural language processing to deliver information conversationally

TurkBot – Music Bot Python, Discord, Spotify, and YouTube APIs

- Developed a voice bot which allows you to play music in VOIP services
- Links with Spotify to automatically play your personal music collection, uses caching to decrease latency

CanvasCal – Status Bar App Python, Google Calendar, and Canvas APIs

- Employed Canvas REST API to synchronize academic schedule with Google Calendar
- Provides reminders, assignment information, and more configurable options

Skills

Languages: Python, C/C++, Javascript, Java, HTML/CSS, Assembly, Shell Script, SQL, LaTeX

Tools: Git, Linux, Bash, Vim, Google Cloud Platform, Firebase

Libraries/Frameworks: Node, React, SFML, OpenCV, API.AI, scikit-learn, numpy

Human Languages: English (native), Tamil (native), Spanish (proficient)