Sri Pranav Kunda

(323) 312-4843 | sripkunda@gmail.com | github.com/sripkunda | sripkunda.me

Education

University of California, Davis   Davis, CA
Mathematics, B.S.   *Expected June 2027*

University of California, San Diego   La Jolla, CA
Summer Session High School Student, Upper Division Mathematics, GPA: 4.0   *Summer 2022*

Cerritos High School   Cerritos, CA
High School Diploma, Enrolled in Engineering Pathway   *June 2023*

Relevant Coursework: Introduction to Analysis I & II, AP Computer Science A, AP Statistics
Software Skills: Python, C++, Git, JavaScript, TensorFlow, PyTorch, scikit-learn, NumPy, React, Angular, LaTeX
Languages: English (Native), Telugu (Native)
Awards: Scouts BSA Eagle Scout Award

Experience & Projects

Chapman University   May 2022 - Oct 2022
Blockchain Research Intern   *Orange, CA*

- Worked with the Ethereum blockchain and learned the Solidity programming language to write Ethereum smart contracts
- Proposed structures for decentralized game development through technical writeups and team discussions
- Researched applications of blockchain in federated machine learning and game development

Machine Learning Intern   June 2021 - Nov 2021

- Implemented support vector machines, k-nearest neighbors, k-means, neural networks, etc. in JavaScript
- Learned about various machine learning paradigms and the involved mathematical theory.

Craytracer   Winter 2022
Ray Tracer and 3D Renderer

- Implemented ray tracing algorithm from scratch in JavaScript, including a library for working with vectors
- Used linear algebra to implement lighting techniques like Lambertian reflectance and specular reflection
- Software renders realistic 3D scenes given physical properties of mathematically defined objects
- Developed API to mathematically define custom objects for rendering

Candl   Summer 2021
Neural Network Library

- Implemented a small, PyTorch-like library for training and designing neural networks in Python
- Supports a tensor-valued automatic differentiation package written from scratch using only NumPy
- Provides tools for designing and training neural networks, such as an optimizer, block/module system, etc.

Feedbump   Sep 2020 - Dec 2021
SaaS Startup

- Founded and developed Feedbump to help business collect and manage user feedback
- Used HTML, JS, and CSS for the web interface and Firebase for authentication/storing business data
- Accumulated ~100 active users in the first 4 months of release through consistent social media marketing

Writing & Publications

Introduction to Stone Duality   August 2022 - Present
Mathematical Notes   *Chapman University*

- Wrote proofs and additional comments for multiple sections of a professor's notes on Stone Duality
- Used LaTeX to typeset proofs and released them on my personal website and GitHub page
- Studied and applied mathematical topics in logic, category theory, lattice theory, and topology to write proofs

Understanding Neural Networks   October 2021 - December 2021
Machine Learning Notes

- Discussed techniques used in neural networks, like the motivation behind nonlinearities and optimization methods
- Detailed theory behind relevant algorithms like automatic differentiation, gradient descent, and backpropagation