

Gino Prasad

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Machine Learning | Computer Vision | Bioinformatics | Web & Full Stack Development | Data Science

Education

UC San Diego: GPA 3.97/4.0

Fall 2020 - Spring 2023 (expected)

Majoring in Bioinformatics (B.S.), Minor in Computer Science

La Jolla, California

- **Relevant Courses:** Data Structures; Algorithms; Convex Optimization; Databases; Linear Algebra; Multivariable Calculus; Bioinformatics Lab

Experience

Machine Learning Research Assistant

Jun 2022 - Current

UCSD Yeo Bioinformatics Lab

- Built a **Convolutional Neural Network** for Spatial Transcriptomics Bioinformatics data.
- Uses **U-Net Architecture** and performs nuclear **semantic segmentation** without need for DAPI staining.
- **Technical Skills:** Python with Tensorflow, Keras, NumPy, Pandas, Pytorch, PyLab, Linux, Git.

Computer Science Research Assistant

Jun 2022 - Current

UCSD Bafna Computer Science Lab

- Developed **Image Processing and Computer Vision** Tools for smFISH(Fluorescence in Situ Hybridization) Image Data
- **Technical Skills:** Python with Tensorflow, OpenCV, Numpy, Pandas, Linux, Git
- Web development for [AmpliconRepository](#), an ecDNA(extra-chromosomal DNA) Public Web Database.
- **Technical Skills:** MongoDB and Django for web framework, querying functionality using Python's SQLite3.

Computational Research Assistant

Oct 2021 - Jun 2022

UCSD Yeo Bioinformatics Lab

- Developed computational applications for **long-read Oxford Nanopore Sequencing Data** analysis.
- Created Error Correction Pipeline for **RNA-seq Analysis** using [Nanorevisor Deep Learning](#) Library.
- **Technical Skills:** Python, Bash, STAR, Minimap2, Samtools, Linux, Pandas.

Software Engineering Intern

Jun 2021 - Aug 2021

Dotdash

- Designed front-end software for Dotdash, the largest digital publisher in the US, managing sites like Investopedia and Verywell Health.
- Developed cross-platform web applications in a collaborative environment using Agile/Scrum.
- **Technical Skills:** JavaScript, Vue, HTML, SASS, Maven, Database Querying, APIs.

Phage Genomics Research Initiative

Oct 2020 - Jun 2021

UC San Diego

- Created a [BLAST parser website](#) using Google App Engine and Python ([GitHub](#)), used by the UCSD professor and class.
- **Technical Skills:** Flask, Python, HTML, Google Cloud App Engine.
- **Research Paper submitted for journal publication; currently under peer review; listed as a contributing author.**

Skills

Programming

Python (Tensorflow, Keras, PyTorch, Pandas, NumPy), C++, Bash, JavaScript, Java, HTML/CSS, SQL.

Machine Learning

Experience With **Multilayer Neural Networks**, **Convolutional Neural Networks**, and **ResNet Autoencoders**.

Web Development

Developed applications with MongoDB, Django, Flask, Vue, and Google Cloud App Engine.

Personal Projects

Custom Search Engine for Linux File System

🐙 github.com/GinoP123/FileSearch

Jul 2022

- Created a keyword-matching search engine with caching fully from scratch using dynamic programming.
- Added learning capability by including popularity and relevance weights.
- I personally use this tool all the time, and find it a huge time-saver for navigating in Linux.

Achievements

May 2022 **Muir Caledonian Honors Society Member**, Awarded for Exceptional GPA.

UC San Diego

Jul 2020 **UCSD BioScholars Honors Society Member**, Awarded membership based on academic achievement.

UC San Diego

2020-2022 **UCSD Provost Honors**, Awarded for Exceptional GPA.

UC San Diego