

# Sidharth Srinath

San Diego, CA | U.S. Citizen

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## Education

### University of California, San Diego

La Jolla, CA, USA

B.S Computer Science. w/ Mathematics Minor

Sep 2020 - Dec 2023

- **Courses:** Neural Networks & Deep Learning, Statistical NLP, Large Language Models(Graduate), Probability & Stats, Computational Stats
- **Extracurriculars:** Mentor @ UCSD Mentor Collective, Association for Computing Machinery (ACM), CSES, Rotaract @ UCSD, Hiking Club
- **Awards:** Provost Honors, Outstanding Project at SPIS 2020 (1/40)

## Work Experience

### Sony Electronics

San Diego, CA

Software Engineering Intern

Feb 2024 - Present

- Designed and deployed >10 serverless TypeScript microservices with CRUD operations, utilizing Azure Functions and Cosmos DB for optimized cloud scalability.
- Built stateful UIs using Redux Toolkit Slices and React-component-based UI frameworks (Fluent UI, Material UI, etc...).
- Enabled cross-platform distribution to [X]-hundred users via Electron.JS packaging, enhancing multi-OS accessibility.
- Reduced API calls to Azure Blob Storage by optimizing Event Hub architecture, facilitating seamless access of services to [X]-hundred users
- Generated \$[X],000 in revenue by developing customer-facing demos for Fortune 500 customers.

### Salk Institute for Biological Studies

La Jolla, CA

Research Assistant

Sep 2023 - Present

- Expanded out-of-distribution (OOD) generalization abilities of SLEAP models through improved training regiments on expanded datasets.
- Improved existing UNet backbone(s) + implemented new Mask-RCNN/ConvNext architectures to drive up to 5% improvements in mAP + >30% better alignment of confidence scores.
- Built proof-of-concept (PoC) models with Vision Transformers (ViTs), Latent-Variable Models (LVMs) and more.
- Migrated core functionality from Tensorflow to PyTorch, driving 3x improvement in training time and 200% reduction in compute costs.

### Werfen North America

San Diego, CA

Software Engineering Intern (R&D)

June - Sep 2022

- Optimized diagnostic assay test libraries, leading to a 40% reduction in execution time.
- Designed navigable and intuitive user interfaces (UIs) in Qt6 w/ C++.
- Developed a library of remote procedure calls with Python w/ gRPC to enable integral client-server communications for whole-blood hemostasis device.
- Utilized Gerrit, Docker, Jenkins, and more to support continuous integration/deployment (CI/CD).
- Participated in regular DSUs and sprint-planning meetings, adopting an Agile workflow powered by Jira, Confluence, and more.

### MEDSmart Inc.

Del Mar, CA

Software Engineering Intern

Sep - Dec 2021

- Forecasted expected medication volume w/ statistical (poly-regression) and deep-learning (autoregression + LSTM) techniques.
- Constructed ETL pipelines in Python and GraphQL through AWS services (DynamoDB, S3, Lambda) as well as local data (NoSQL).
- Enabled client pharmacies to cut costs by up to 30% on unused medications.

### University of California, San Diego

La Jolla, CA

Instructional Assistant (CSE 8A, CSE 12)

Sep 2021 - Jun 2022

- Implemented + lead the weekly discussion session program to assist struggling students through difficult concepts + programming assignments.
- Served as head tutor for weekly lab sessions, overseeing 30+ students and 5-7 tutors.
- Developed and evaluated assignments, quizzes, and exams.

## Projects

### Social Compass Android App

[Link](#)

End-to-end Android App that displays friends' locations in comparison to yours in real-time. Developed in Java, and Android studio using Android SDK and Google Location APIs. Also developed a RESTful API to serve location requests + generated randomized, structurally relevant location data.

### SnakeAI

[Link](#)

Reinforcement Learning AI agent that progressively learns to play the classic Snake game. Developed in Python with genetically evolving neural nets (neat-python) based on NEAT paper by Stanley, et al.

### Professional Portfolio

[Link](#)

Personal web portfolio designed in React.js + Html + CSS. Hosted by Github pages.