# Sri Chandrasekaran

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## Education

**University of California, Berkeley** Berkeley, CA

*Bachelor of Arts in Data Science and Applied Math* *May 2026*

Relevant Coursework: *Data Structures, Algorithms, Machine Learning, Artificial Intelligence, Linear Algebra, Optimization Models, Signal Processing, Numerical Analysis, Data Science, Structure of Computer Programs, Discrete Mathematics*

## Experience

**Software Engineer Intern** June 2025 – Present

*Stealth Startup (CRM/data infrastructure)* *Berkeley, CA*

- Build and integrate 10+ secure TypeScript API endpoints for user-triggered data ingestion and connection validation
- Ship a full-stack error logging dashboard enabling end users to view and debug pipeline failures in real time, replacing manual CLI debugging
- Integrate LLM-powered natural language interface for SQL filter generation from user prompts, auto-populating based on past usage
- Design SQL tables and models to support data pipeline orchestration and track transformation metadata for end-to-end workflow execution

**Engineering Intern** June 2024 – Aug 2024

*Fragile* *San Francisco, CA*

- Built an internal data aggregation tool used by 20+ internal stakeholders, integrating AWS S3 with backend services to centralize access to structured resources
- Refactored backend pipelines using dbt and Prefect, improving ETL modularity and accelerating automated testing workflows
- Automated Snowflake job executions, reducing testing frequency by 75% and cutting manual overhead in daily operations

**Undergraduate Researcher** Jan 2024 – Jan 2025

*UCSF - Larson Advanced Imaging* *San Francisco, CA*

- Developed Python-based analysis pipelines for hyperpolarized 13C MRI data from 15+ patients, supporting quantification of myocardial perfusion
- Applied NMF and constrained least squares decomposition to isolate perfusion-related signals, enforce physiological constraints, and reduce partial volume effects
- Delivered processed outputs and analytical findings used by 5+ lab researchers; shared pipeline methodology via internal abstract to imaging faculty

**Undergraduate Researcher** May 2023 – May 2024

*Berkeley NetSys Lab* *Berkeley, CA*

- Built predictive models in Python and R to forecast congestion in TCP networks using time-series data from BBR simulations
- Applied statistical forecasting methods including ARIMA and Gaussian Process Regression, across 50+ simulation runs with thousands of datapoints each, to model throughput, latency, and packet loss
- Collaborated with PhD researchers to evaluate congestion-control performance, contributing experimental insights for future protocol refinement

**Software Engineer Intern** May 2023 – Aug 2023

*Neuroleap Corp* *San Jose, CA*

- Built a React-based data visualization dashboard for autism diagnostics, modularizing frontend components and integrating live diagnostic APIs to reduce report generation time by 50%
- Automated dynamic PDF creation using Axios and backend services, enabling consistent and rapid delivery of user-facing clinical reports

**Co-Founder & Chief Executive Officer** July 2020 – Present

*STEMz Learning* *Sacramento, CA*

- Develop a full-stack edtech platform (React, Flask, Node.js, PostgreSQL) with over 3,000 student users, enabling open-ended assignments and interactive learning workflows
- Engineer NLP pipelines to evaluate student responses across skills like critical thinking, curiosity, and creativity, using vectorized scoring models
- Architect backend infrastructure and analytics systems for scalable student feedback, lead a 5-person team across the full stack
- Lead Fall 2025 pilot across 7 classrooms (100+ students, 7 teachers) to evaluate student growth through real-time analytics and feedback loops

## Projects

**Build Your Own World** | *Java* April 2023 – May 2023

- Developed a 2D procedurally generated tile-based world with 15–30 rooms, supporting interactive exploration and object interaction.
- Designed a dynamic GUI with player stats, toggleable lighting, and implemented save/load features using modular OOP principles.

**Machine Learning in Pac-Man** | *Python* Oct 2024 – Dec 2024

- Trained MLPs, RNNs, and CNNs for tasks like digit recognition (97%) and language ID (81%).
- Implemented core ML models including Perceptron and nonlinear regression from scratch using PyTorch for efficient training.

**Blind Image Deconvolution** | *Python* Mar 2025 – May 2025

- Created a novel Richardson-Lucy blind deconvolution with PSF filter bank to restore images degraded by Gaussian and defocus blur.
- Achieved PSNR of 40.8 and SSIM of 0.991 on mixed Gaussian + defocus blurred images with blind initialization, demonstrating state-of-the-art restoration quality

## Technical Skills

**Languages**: Python, Java, R, JavaScript, SQL, HTML, CSS, MATLAB

**Frameworks & Technologies**: React, TypeScript, Node.js, Flask, Git, NumPy, Matplotlib, pandas