Srikar Talluri

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EDUCATION

University of California, Berkeley

May 2025

 $Bachelor\ Degree\ in\ Computer\ Science$

Berkeley, CA

Bachelor Degree in Mathematics

- **GPA**: 3.85
- Selected Coursework: Algorithms, Operating Systems, Deep Learning, Optimization Models, Computer Graphics, Probability Theory, Discrete Math, Linear Algebra, Abstract Algebra, Real/Complex Analysis, Numerical Analysis
- Activities: Math Undergraduate Student Association, Competitive Programming, Berkeley Debate, Pickleball Team

Honors & Awards

Honors: Upsilon Pi Epsilon (top 33% of CS students), Math Honors Program (grad classes + thesis), Dean's List Awards: Google Code Jam (Top 500), International Collegiate Programming Contest/ACM ICPC Top 15 Division 2

WORK EXPERIENCE

Machine Learning Engineering Intern

May 2024 - Aug 2024

Talroo

Austin, TX

- Trained ensemble transformer models for job search classifiers in tensorflow with 0.98 f1, improving baselines by 0.26 f1
- Designed end-to-end Triton serving architecture to support throughput of 120 tps measured on one gpu
- Integrated license extraction model into main job search platform, boosting client conversion rate from 4% to 6%
- <u>Tech</u>: Databricks, Keras NLP, TensorFlow, BERT, spaCy, NER, Spark, Scala, Data Streaming, Triton, MLflow

Data Engineering Intern

Jun 2023 – Aug 2023

Voque Magazine

New York City, NY

- Built real-time multi-threaded Spark pipelines to process 60+ petabytes of daily user data into deltalake tables
- Deployed parallelized stream architecture in Terraform to ingest 2,000,000+ subscriber data, achieving 4x speedup
- Developed service to smart-ship overstock, earning potential of \$175k+; won 1st place in intern pitch competition
- Tech: Databricks, Apache Spark, Apache Kafka, AWS DynamoDB, Terraform, Docker, Astro CLI

Software Engineering Intern

Oct 2022 - May 2023

SC Electric Automation

Alameda. CA

- Implemented automated communication systems in C++, reducing latency on electric grid chips by 67ms (from 150ms)
- Developed production-scale web application on 200+ GPS devices with TCP/IP and UDP networking protocols
- Engineered device classification model with Support Vector Machines, automating 86% of daily regression checks
- <u>Tech</u>: C++, Python, React, Raspberry Pi, Selenium, Jenkins, Batch Scripts, SCRUM

SELECTED PROJECTS

 $\textbf{ChessFormer} \mid \textit{Python, PyTorch, GPT Transformer Models, Onnx, Lichess API}$

- Designed searchless transformer-based chess agent with 1900+ rating trained on 2,000,000+ board states with pytorch
- Achieved 92% accuracy when fine-tuned to predict expert moves from PGN datasets with integrated move legality
- Served quantized model using Onnx and linked to bot API for open play on Lichess servers

PhySolve | Rust, Python, PyO3, Rayon, Numpy

- Designed Python library written in Rust to simulate physics problems: kinematics, n-body problem, fluid dynamics, etc
- Wrote parallelized versions of Range-Kutta & Navier Stokes resulting in 70% speedup and 40x speedup from Python
- Built robust wrapper around Rust core using PyO3 enabling seamless integration with Python scripts

PintOs | C++, C, x86 assembly, Docker, Bochs

- Developed operating system kernel in C (without stdlib) that implements preemptive multi-threading, synchronization primitives, advanced priority scheduling, and system calls.
- Extended to support running user programs, virtual memory management, caches, and persistent extensible file system

TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, TypeScript, Ruby, Scala, SQL, Rust

Tech Stacks: Firebase, React, Flask, Django, Next.js, Node, GraphQL, PostgreSQL

Developer Tools: Apache Spark, Databricks, AWS Cloud, Google Cloud, Git, Docker, Jenkins, Postman

Libraries: Pandas, NumPy, SKLearn, TensorFlow, Keras, Pytorch, MatPlotLib, OpenCV, Selenium, OpenGL, GLSL