Siddharth Narsipur

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EDUCATION

University of Rochester — Rochester, NY
Bachelor of Science in Computer Science — *Aug. 2022 – May 2026*
- GPA: 3.8, Dean's List
- Coursework: Operating Systems, Distributed & Parallel Computing, Data Structures & Algorithms, Computer Architecture, Computer Vision, Artificial Intelligence, Programming Languages, Advanced Compilers.
- Activities: Google Developer Student Club, MLH Fellowship Finalist, CSUG Tutor, UR Cricket Club.

EXPERIENCE

Software Engineer Intern — May 2023 – July 2023
LiquiDonate Inc. — *San Francisco, CA*
- Created multiple REST and GraphQL APIs that enhanced sell & order features within the company marketplace.
- Implemented server-side caching to handle API requests, reducing response latency by 20% for retail clients.
- Built an authentication microservice in Go to periodically revoke outdated API credentials and generate new ones.
- Deployed unit tests with the Ginkgo framework and integrated API performance logging with Sentry on Google Cloud.
- Automated end-to-end inventory tracking for 90,000+ unique SKUs using Shopify and Stripe webhooks.
- Designed an admin dashboard in React to display real-time data and updates for 15,000+ concurrent shipping movements.

Undergraduate Research Assistant — May 2024 – Present
Rochester Bear Lab — *Rochester, NY*
- Developed an application for Meta Headsets that automatically adapts user interfaces for different VR/MR environments.
- Implemented a 50 parameter linear programming model in Python that optimally places virtual elements in 3D space.
- Wrote a Unity tool in C# and .NET to conduct research studies that allows subjects to view multiple virtual rooms at once
- Presented poster and demo at conferences and workshops. Awarded the Schwartz Discover Grant.

Teaching Assistant — Jan 2023 – Present
Hajim School of Engineering — *Rochester, NY*
- Held office hours to review lecture and guide students with assignments for Data Structures, AI courses.
- Conducted workshops to improve understanding in topics such as Machine Learning and Sorting Algorithms.

PROJECTS

3D PBR (Physically Based Rendering) Material Generation | *Python, PyTorch, CUDA, Bash scripting*   Github
- Constructed a computer vision pipeline using the ControlNet algorithm with Stable Diffusion models to generate highly photorealistic PBR texture maps from photographs.
- Trained deep learning models on NVIDIA A100 GPUs using CUDA acceleration and the Mat Synth dataset, resulting in a 10% lower error rates through optimized hyperparameter tuning and data preprocessing.

Group4Good (Built @ HackMIT) | *Python, Flask, React, IRIS Vector DB*   Github
- Built a platform with Flask and Python to securely analyze group purchase data and match common interests with relevant non-profits based on K-Means clustering and data analytics.
- Leveraged Capital One's Nessie API and InterSystem's IRIS Vector Search to identify and recommend charities based on transaction patterns, attaining 92% user-charity match satisfaction.

Nearvents (Dandyhacks Winner) | *Angular, TypeScript, Ionic, Firebase*   Github
- Created a full-stack event management app used by 400 college students with real-time feed updates powered by Firestore.
- Implemented a location-based notification feed using Capacitor Geolocation API that increased app engagement by 40%.

Distributed Counter | *Python, Java, Docker, Kubernetes*   Github
- Designed and implemented a distributed counter service with support for idempotency tokens and atomic operations.
- Integrated Apache Kafka's durable queuing system for reliable event logging and data loss prevention, and deployed as a containerized service with Docker.

TECHNICAL SKILLS

Languages: Java, Python, Go, C, C#, JavaScript, HTML/CSS, TypeScript
Frameworks: React, Node.js, Flask, Angular, Ionic, Next.js
Developer Tools: Git, Docker, SQL, Postgres, Vector DB, Firebase, Google Cloud Platform, Agile, Flask, Unity, OpenCV