Anirudh Narsipur

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EDUCATION

Brown University, *M.Sc. Computer Science* Providence, RI | September 2024 - May 2025

- Fully funded by a research scholarship

Brown University, *Sc.B. Computer Science-Mathematics (Honors)* Providence, RI | September 2020- May 2024

- Senior Prize in Computer Science (Top 5% in department)
- Honors Thesis: Towards Automated Reasoning for Shell Programs
- Relevant Courses: Operating Systems, Cryptography, Machine Learning, Discrete Optimization, Programming Languages

EXPERIENCE

Evolver AI (GenAI Engineer) Palo Alto | June 2025 - Present

- Built new tax analysis pipeline for Value Added Tax
- Improved data ingestion/RAG pipeline by designing vector search alternatives
- Built new capabilities for complex auditing workflows

Amazon AWS Automated Reasoning Group (SDE Intern) Seattle | May 2022 - Aug 2022, May 2023 - Aug 2023

- Built 2 new services to deliver automated reasoning solutions for more than 6 critical customers across Amazon
- Deployed to production a new distributed data benchmarking pipeline in Python to process 100,000+ items with a 10x runtime speedup
- Designed a new service in Java using Lambda, DynamoDB, SQS to offer mathematical correctness proofs for security-sensitive customers
- Deployed novel research techniques to reduce proof checking overhead by 80%

Brown U Head Teaching Assistant June 2021 - Present

- Held office/lab hours and graded assignments across five upper level/graduate CS courses
- Coordinated all logistics for leading a 10-member course staff for a 100-person upper-level course (CSCI 1710)
- Delivered guest lecture to 30 students in graduate course on discrete optimization (CSCI 2951O)
- Redesigned course assignments and created course websites using Jekyll

PROJECTS

Static Analysis for Shell Scripts

- As part of the PaSH group, created a novel Rust/Python based static analysis tool for Posix shell scripts
- Catches more than 500 syntactic, shell-related and filesystem related bugs
- Presented at New England Programming Languages Symposium
- Published at HotOS 2025

Operating System

- Developed an operating system (Weenix) in CSCI 2670 (graduate level operating systems course)
- Wrote multithreading, processes, and synchronization primitives
- Implemented device drivers, virtual memory, and Linux-like filesystem

Automated Degree Requirements Checker

- Designed a new degree requirement checker for the Brown CS department as industry software could not meet department needs
- Devised degree requirement formalization from scratch using first order logic in the Z3 SMT solver
- Eliminated manual checking overhead and streamline student requests to advisors

Local Search Solver: Vehicle Routing Problem

- Applied advanced Local Search heuristics and integer programming methods to the vehicle routing problem, achieving near-optimal solutions

Concurrent KV Store

- Implemented a bare metal concurrent key-value store in Rust capable of supporting 480,000 operations per second

SKILLS

Programming: Rust ,Python, Java, C/C++, Julia, Bash, JavaScript

Tools: Git, Linux, GDB, Vim, Pandas, NumPy, TensorFlow, Amazon Web Services (AWS)