

Shravya Nandyala

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Skills

- C, Go, Python, SML, OCaml, React, Java, SQL, R
- Professional use of Docker, Git, Linux, AWS, GCP
- PyTorch, TensorFlow, Keras, NumPy, NLTK, ROS
- Fast learner who is up for complex, abstract challenges

Education

Carnegie Mellon University - B.S. in Artificial Intelligence, Addtl Major in Russian Studies Aug 2020 - May 2024
Relevant coursework: ML, NLP, Computer Systems, Algorithms, Data Structures, Theoretical CS
Princeton University - Dual Enrollment in Computer Science Sep 2019 - May 2020

Experience

Cruise — Machine Learning Infrastructure Labeling Intern May 2023 - Aug 2023

- Optimized integral task tree visualizer, reducing load time from 15+ minutes to < 5 seconds for large trees.
- Created Task Workshop, a flexible and extensible web-based tool which will eliminate 90% of all manual production database edits made by the Labeling team.

Trimble Inc. — Software Engineer Intern Jul 2019 - Sep 2020 & Sep 2022 - Dec 2022

- Implemented algorithms to ensure all 41,000+ zip codes in the U.S. are connected at various layers of grid data.
- Proposed and executed migration of route testing to the cloud to allow for increased speed and frequency.
- Implemented use of AWS Spot Instances to automate route testing of 1 trillion routes at 50% cost reduction.
- Developed a website interface for routing teams' manual testing in addition to automated tests through Jenkins.

Cisco Systems, Inc. — Technical Undergraduate Intern May 2022 - Aug 2022

- Fully automated Cisco's lab inventory management and reservation system, optimizing capital expenditure and boosting developer productivity.
- Developed and managed the Zebra resource management tool, heading team of five software engineers.

AI in Action — Student Liaison Aug 2021 - Present

- Managing organizing team for AI in industry seminar series hosted by Carnegie Mellon's AI department.
- Facilitated conversations with top industry professionals in front of 300+ person live audiences.

Building on Local Trust (ZUZ) — Undergraduate Researcher May 2021 - Dec 2021

- A community-based currency implemented with blockchain technology and the use of a public ledger, making capital available immediately to businesses and aimed at eliminating systemic bias and inequity.
- Designed production cloud environment infrastructure using AWS, Jenkins for CI/CD, and MongoDB Atlas.

Introduction to Computer Systems — Teaching Assistant Aug 2021 - Dec 2021

- Led recitations, bootcamps, and office hours for fundamental computer systems concepts in C programming, memory allocation, virtual memory, cache, signals, proxies, networking, etc.
- Developed written assignments and programming labs, improved course infrastructure.

Projects

Pushkin.ai

- Fine-tuned GPT transformer-based deep learning neural network to generate Russian poetry from a seed text.
- Stress module to enforce rhyme scheme, trained on Pushkin writing data to stylize output and mimic form.

Autonomous Greenhouse (ongoing)

- Building an entirely autonomous greenhouse agent that grows lettuce and radishes over 4 week grow periods.
- Robot software written in Python with ROS and pytransitions.

Zebra - Open-Source Resource Inventory, Management, and Reservation Tool

- Project founder, lead system designer, and lead code contributor to open-source project written in Golang.
- Zebra lets authenticated users reserve any set of resources, with predefined and custom templates, metric tracking, and a template marketplace for one-click sharing of dev environments.

Stanford Sophmates Matching Algorithm

- Sole Python developer of program that pairs students with their most compatible friend based on survey input.
- Used K-Means clustering to build a matching algorithm that mapped 600 participants in under 2 minutes.
- Automated sending emails to inform participants of their matches through a Python script.

C0 Compiler (ongoing) - C0 is a subset of the C programming language

- Building a compiler in OCaml to result in X86-64 assembly code file generation from C code input.
- Chordal graph construction using maximum cardinality search for SSA-based register allocation, phi functions to support branching and looping.

Awards and Achievements

AWS Certified Developer - Associate

Founder and President of Cloud Computing Club, an AWS education initiative for high school students

Carnegie Mellon University School of Computer Science Dean's List, High Honors