

# Tashi Sherpa

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## Education

### Rensselaer Polytechnic Institute

August 2021 – May 2025

B.S. Computer Science, GPA: 3.97

Troy, NY

- **Relevant Coursework:** Data Structures, Operating Systems, Codepath, Computer Architecture, Algorithms, Linear Algebra, Machine Learning, Discrete Math, Object Oriented Programming, Software Engineering
- **Awards:** Dean's List, 2023 ICPC Northeast Regional, RPI Leadership Award, RPI Academic Recognition
- **Clubs:** Society of Asian Scientists and Engineers, Rensselaer Center for Open Source, Upsilon Pi Epsilon

## Experience

### Leidos

June 2024 - Present

Software Developer Coop - Secret Clearance

Bethesda, MD

- Engineered new **CI/CD** pipeline for customer-facing ocean acoustic simulation GUI, speeding performance by **50%**.
- Designed company-wide tool using **Linux shell scripting** with Checkstyle **Java** autoformatting with flag configuration, impacting **10+** projects across various subteams.
- Refactored **5+** projects to utilize **Docker / Podman containers** and **Kubernetes** orchestration with **Python**.

### The New York Times

June 2023 - August 2023

Software (Frontend) Engineer Intern, Live Storytelling

New York, NY

- Spearheaded new reporter updates feature on high-traffic newsroom **CMS**, employing **HTTP requests** to **Google Firestore**, positively impacting the daily publishing workflow for journalists.
- Led investigation on optimizing live blog highlight feed with **GraphQL**, assessed bottlenecks, and proposed actionable solutions, paving the way for increasing news reading engagement.
- Pair-programmed with senior engineers on end-to-end features + resolved critical bugs with **Typescript** and **React**.

### Rensselaer Polytechnic Institute

January 2023 - May 2023

Supervised Machine Learning Research Intern

Troy, NY

- Accomplished an **80% increase** in regression model fit with penalized cost and decision tree techniques by using **Python** libraries **scikit-learn**, **NumPy**, **pandas**, and **Matplotlib** and **MATLAB**.
- Improved models' efficiencies by an additional **30%** by introducing a cross-validation set, examining feature/label pairwise correlation, conducting feature extraction with PCA, and calculating mean-square error.

## Projects

### ScribeAI | React, Node.js, Express, MongoDB, Python, OpenAI Whisper, HuggingFace Transformers

[Project Link](#)

Machine learning speech-to-text and text summarization MERN stack web application to enhance note-taking.

- Led a group of four, managed **AGILE** meetings, and designed entire front and backend architecture via **Figma**.
- Spearheaded backend infrastructure: developed **MongoDB** schemas, user authorization system, and all server **API endpoints** for integration with the "User" model and machine learning models with **Node.js** and **Express**.
- Developed frontend pages and components, including routing implementation, using **Node.js**, **Express**, and **React**.

### NeRF or Nothing | Python, Flask, React, Bootstrap 5, HTML/CSS, Figma, Git

[Project Link](#)

Neural Radiance Field application utilizing machine learning to convert 2D images to 3D rendered scenes.

- Collaborated in a team to develop an application for rendering, storing, and sharing NeRFs (**neural radiance fields**).
- Developed, optimized, and unit-tested **Flask** web server API endpoints responsible for NeRF video handling.
- Migrated Vue frontend to React; overhauled footer and navigation bar components with **React** and **Bootstrap 5**.

### UChat | Javascript, React, Node.js, MongoDB, Figma, Netlify, HTML/CSS, Git

[Project Link](#)

Social media platform allowing users to communicate, friend, and donate to individuals in Ukraine.

- Worked with a team of four to develop and deliver a **MERN stack** Ukraine relief chat application, hosted on **Netlify**.
- Created user-friendly **CRUD** donation and login components with **MongoDB**, **React**, **CSS**, and **JSX**.
- Implemented **6 responsive designs** for login, create-account, and donation pages using **CSS media queries**.

## Technical Skills

**Languages:** C, C++, Python, Java, Bash, Golang, HTML / CSS, Javascript / Typescript, GDScript, MATLAB

**Development Tools:** Git, Github, MongoDB, Docker, Podman, Linux, MacOS, JIRA, Godot

**Frameworks/Libraries:** React, Next.js, Node.js, Express, Flask, Boost, scikit-learn, pandas, NumPy, Matplotlib