

# Gaurab Chhetri

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## SKILLS

**Languages:** TypeScript, JavaScript, Python, C/C++, SQL, R, HTML, CSS, PHP

**Web/Backend:** Next.js, React, Node.js, Express, REST; **DB:** MySQL, MongoDB, SQLite; **Tools:** Docker, Linux, Git, Neovim

**Data/ML/Viz:** pandas, numpy, scikit-learn, Hugging Face (Transformers), R (ggplot2, Shiny), D3.js, Leaflet.js

**Additional:** SEO, CLI tooling, WordPress, Domain management, Prompt engineering, CI/CD, GitHub Actions

## PROJECTS

### CognitiveSky ([github.com/gauravfs-14/cognitivesky](https://github.com/gauravfs-14/cognitivesky))

Research Project

*Node.js, Python, Hugging Face (Transformers), React*

*May 2025 – Aug 2025*

- Engineered an end-to-end Bluesky Firehose pipeline with batched NLP labeling for sentiment, emotion, and topics, and delivered a Next.js research dashboard with Turso-backed snapshots; accepted for presentation at **HICSS 2026**.

### CrashTransformer ([github.com/gauravfs-14/crashtransformer](https://github.com/gauravfs-14/crashtransformer))

Research Project

*Python, Hugging Face (Transformers), Next.js*

*Jul 2025 – Aug 2025*

- Developed a transformer-based workflow for narrative summarization and severity inference across **150k+ police reports** with reproducible evaluation and open documentation.

### Bhanai Programming Language ([npmjs.com/package/bhanai](https://npmjs.com/package/bhanai))

Personal Project

*Node.js, CLI Tools*

*Jan 2021 – Feb 2021*

- Published a Nepali-style interpreted language that executes `.bhn` files via `chala`, supporting variables, conditionals (`yadi...aru`), comments, lists, and objects under the MIT license, reaching early adoption among hobbyist developers.

### ComputeNepal ([computenepal.com](https://computenepal.com))

Open Source

*WordPress, SEO, Open Source*

*May 2021 – Present*

- Founded an education platform with **200+ articles** and expanded reach to **50k+ monthly impressions** through technical SEO and open source learning tools, including Learn C, JS Challenges, Learn HTML, and Quiz.

### Research Dashboards and Tools ([github.com/gauravfs-14](https://github.com/gauravfs-14))

Research Project

*Next.js, Leaflet.js, TypeScript*

*Oct 2024 – Present*

- Delivered **25+** interactive dashboards with filtering, clustering, overlays, and responsive UI in Next.js and Leaflet, ingesting CSV, SQLite, and API sources to support research and policy analysis.

## EXPERIENCE

### Undergraduate Research Assistant

San Marcos, TX

*AIT Lab @ Texas State University*

*Oct 2024 – Present*

- Produced **25+ analytical and visualization tools** across internal and open source contexts, processed **150k+** mobility and crash records, and standardized AI in transportation workflows with reproducible pipelines.
- Co-authored **5+ manuscripts** published or online with **10+** additional submissions in progress, contributing methods, analysis, modeling, quality control, and documentation in Python, R, and JavaScript.
- Designed the AIT Lab website in Next.js and Tailwind, deployed on Vercel, and achieved **90+ Lighthouse** SEO and performance scores across publications, projects, team, and resources sections.

## HONORS & AWARDS

### Hackathon Wins

Austin & San Marcos, TX

*HackaCat Nano 2024, RiverHacks 2025 × 2, Organized AI Hackathon 2025*

*Aug 2024 – Present*

- Secured **4 of 5 hackathons wins** since 2024, building projects such as **RUMI** (AI roommate finder), **ResQMe** (AI emergency response system), and **MedGuide AI** (medical assistant with LangGraph and RAG).

### Undergraduate Research Fellowship

Texas State University

*Competitive Research Fellowship*

*Mar 2025*

- Awarded \$2,000 in Quanta Services funding to lead an independent research project on heat stress prediction.

## EDUCATION

### Bachelor of Science in Computer Science

San Marcos, TX

*Texas State University (GPA: 4.0) — Dean's List (Fall 2024 – Present)*

*Expected May 2028*

- Coursework:* Data Structures, Algorithms, Assembly Language, Discrete Math, Probability & Statistics, Calculus