



in niting9

# NITIN GUPTA

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Portfolio

## EDUCATION

**University of South Carolina (Aug 2021 – May 2025)**

**B.S.:** Computer Science; **Minors:** Mathematics, Data Science

**GPA: 4.0/4.0**

President's Honor List (since Aug '21)

**Relevant coursework:** Artificial Intelligence, Big Data Analytics, Software Engineering, Database Design

## SKILLS

**Advanced** in Python, Java, C++, Linux, git,  $\LaTeX$

**Intermediate** in PyTorch, SQL, NoSQL, R, Apache Hadoop

**Native** in English, Hindi, Punjabi

**Proficient** in Spanish

## EXPERIENCE

### AI Researcher

AI Institute of USC, University of South Carolina

Columbia, SC

Aug 2024 – Present

- Developing innovative chatbot systems to promote voter participation among vulnerable groups
- Developing automated literature categorization tools, contributing to advancements in AI applications

### Volunteering Ambassador

Trew Friends

Columbia, SC

Aug 2021 – Present

- Promoted organ, eye, and tissue donation, informing and educating people about the importance of donation.
- Successfully persuaded over 300 individuals to register as donors on the national organ donor registry.

### Explainable AI Research Intern

AI Institute of USC

Columbia, SC

May 2024 – Aug 2024

- Developed a framework using Natural Language Processing and enriched knowledge graphs to generate transparent, context-aware explanations for AI-generated plans
- Conducted traffic data analysis for the SCDEC by identifying collision patterns and evaluating safety programs

### Machine Learning Researcher

Digital Research Services, University of South Carolina

Columbia, SC

Aug 2022 – Apr 2024

- Conducted data mining on South Carolina Laws using Python and Natural Language Processing
- Trained machine-learning algorithms to study the prepared session laws and identify Jim Crow Language

### Material Analysis Researcher

Jefferson Lab, University of South Carolina

Columbia, SC

Jun 2022 – Oct 2022

- Enhanced high energy physics research by developing C++ analysis code to process simulated data for various magnet materials, leading to potential cost savings of over \$1,000,000

## PUBLICATIONS

### Towards Enhancing Road Safety in South Carolina Using Insights from Traffic and Driver-Education Data

N. Gupta, B. Muppasani, et al.

AAAI 2025

Under Review

### ElectionBot-SC: A Tool to Understand and Compare Chatbot Behavior for Safe Election Information in South Carolina

B. Muppasani, K. Lakkaraju, N. Gupta, V. Nagpal, S. Jones, B. Srivastava

AAAI 2025

Under Review

### Building a Plan Ontology to Represent and Exploit Planning Knowledge and Its Applications

B. Muppasani, N. Gupta, V. Pallagani, B. Srivastava, et al.

CODS-COMAD 2024

Accepted

## AWARDS & ACHIEVEMENTS

**McNAIR Junior Fellowship** for undergraduate computer science research.

May 2024

**Phi Beta Kappa Freshman Award** for outstanding academic performance at USC.

Apr 2023

**Research Presentation at CEU** to computer science and nuclear physics professionals.

Oct 2022

## PERSONAL PROJECTS

### Segify: Semantic Segmentation for Localized Artistic Effects

🌐 g-nitin/stylized-segmentation

- Built a neural style transfer app enabling real-time, localized style transfer using SoTA segmentation techniques

### Deep Learning & Autoencoders for Colorization

🌐 g-nitin/convolutional-autoencoder

- Developed a convolutional autoencoder for accurate image colorization of b/w photos using PyTorch on 28,000 images