SIDDARTH GUPTA

siddarth-gupta.github.io · gupta.siddarth26@gmail.com · www.linkedin.com/in/siddarth-gupta

Professional Summary

A pragmatic Computer Science student with 5 years of coding experience and a passion for learning and building new things. Strong organizational abilities with successes managing academic projects and mentoring.

Education

The Pennsylvania State University, University Park , PA   Expected Graduation: 2026

College of Engineering   GPA: 3.01/4.00

B.S in Computer Science

Recipient of Erickson Discovery Grant 2023

Work Experience

Computer Science Research Assistant -   The Pennsylvania State University, Pennsylvania
· Worked under Dr. Daniel Kifer, assisting him in the development of a successful Privacy Preserving System.   March 2023 - Present
· Developed privacy Preserving prototypes, parsing SQL queries using tech such as Apache Calcite for maximum efficiency.
· Provided reasonable level or privacy protection while also preserving the utility of data for statistical analysis.

Programming Intern   Petrous, India
· Worked with analysts to prepare test plans and assess test data.   June 2022 -August 2022
· Used critical thinking to simplify problems, evaluate solutions & make decisions.
· Created databases, web forms and other applications for diverse uses. Designed and developed analytical data structures using Python.

Astrophysics Teaching Assistant   The Pennsylvania State University
· Collaborated with Dr. Julia Kreganow as a teaching assistant for Astro 1: Astronomical Universe course.   January 2023 - May 2023
· Facilitated student engagement by addressing inquiries and clarifying course concepts.
· Contributed to fostering a better understanding of the course material among over 250 students.

Projects

Enhanced neural Cleanse Detection   June 2023 - present
· Strengthened Neural Cleanse's backdoor detection with advanced techniques.
· Published paper advances secure machine learning through improved detection.
· Integrated techniques effectively for stronger machine learning security.

Privacy Preserving System   March 2023- present
· Developed PINQ-based system with differential privacy techniques for secure data sharing.
· Enabled accurate statistical analysis while safeguarding individual data confidentiality.
· Contributed to user privacy advancements through pioneering research paper on secure data analytics.

Image Classifying Convolutional Neural Network   January 2023- April 2023
· Achieved high-accuracy image classification on CIFAR-10 dataset using CNN architecture.
· Demonstrated improved performance compared to a simple artificial neural network model.
· Successfully deployed an impactful image classifier with TensorFlow, advancing model accuracy.

ISS Tracker   September 2022 - December 2022
· Developed real-time International Space Station (ISS) Tracker project.
· Utilized APIs to continuously update and display ISS coordinates on a world map.
· Enabled user exploration of ISS's live position for an interactive experience.

Skills

• Languages • Python, Java, Javascript, HTML, CSS, C, SQL.   • Frameworks • Materialize, ReactJs, Django, Apache Calcite.
• Microsoft   • Excel, Powerpoint, Access, Word.