

SIDDHARTH SHARMA

siddharth22sharma@gmail.com | +1 (857) 381-4112 | linkedin.com/in/siddharthsharma99 | github.com/SuperSid99

TECHNICAL SKILLS

Languages: Python, C++, C, Swift, JavaScript, Node.js, Next.js, React, SQL, MySQL, HTML, CSS, Tailwind CSS
AI/ML: TensorFlow, Keras, OpenCV, Scikit-Learn, PyTorch, NumPy, Pandas, CUDA, NLTK, Hugging Face, LLM, Transformer Models, Reinforcement Learning, Generative Models, Image Segmentation, Computer Vision, NLP
Tools/Skills: AWS, Docker, Kubernetes, REST API, Git, GitHub, Blockchain, Cryptography, Mathematical Modeling

WORK EXPERIENCE

TekMonks

Remote, USA

Software Developer / AI Engineer

Jan 2025 – Present

- Optimized AI model prompts and refined prompt strategies using Python to optimize LLM performance by inducing desired behaviour, improving contextual accuracy and output relevance.
- Developed an enterprise chatbot leveraging TF-IDF and vector search to retrieve relevant data, and using LLMs (via Hugging Face Transformers API and Ollama) for language refinement to present accurate and verifiable answers.
- Benchmarked 10+ LLMs using Python and API integrations evaluate accuracy, latency, and deployment efficiency.
- Integrated Google SSO into internal LoginApp with OAuth 2.0 and JavaScript, optimizing Sign-on for 200+ users.

Tiny Archives

Remote, USA

Software Developer / DevOps Engineer

Dec 2024 – Present

- Deployed company's full-stack web app using AWS EC2, S3, and Docker, improving uptime and deployment efficiency.
- Secured user data by implementing encryption using Python's cryptography library and custom cipher protocols.
- Refactored core components of the codebase written in Python and React.js, reducing system lag and latency by 50%.
- Programmed the core payment infrastructure and subscription model architecture using PostgreSQL, Python, TypeScript, React.js, and Stripe API, fully integrating the infrastructure into the web app to enable secure transactions.

TE Connectivity

Pennsylvania, USA

AI Research and Development – Visiting Engineer

Oct 2022 – May 2023

- Created a TensorFlow-based neural network to detect data matrices in monochrome images, achieving 93% precision.
- Built and labeled a custom dataset of 50,000+ images using OpenCV and Python to improve model robustness.
- Reduced production time by up to 6 months and saved \$100K by adding efficiency enhancements to production lines.

Deep LogicTech

Delhi, India

AI Research Co-op

Mar 2021 – Jun 2022

- Built an anomaly detection pipeline using Python's Scikit-learn Isolation Forest to identify anomalies in server and database traffic to prevent cyber attacks with 90% accuracy.
- Integrated NLP-based query parsing into internal databases using Python's NLTK and SQL, reducing data retrieval time by 40% and improving accessibility.

EDUCATION

The Pennsylvania State University

Aug 2022 - Aug 2024

M.S. in Computer Science

GPA: 3.4/4.0

- Teaching and Research Assistant - Assisted faculty in Data Structures and Algorithms, mentoring 50+ students.
- Courses - Thesis Research, Computation Theory, Adv Algorithms, Adv Database, Adv Operating Systems, Neural Networks, NLP

Guru Gobind Singh Indraprastha University

Aug 2018 - May 2022

B.tech in Computer Science

GPA: 8.3/10.0

- Led programming classes for freshman and sophomore students as part of a university sponsored initiative.
- Courses - Adv Mathematics, Software Engineering, Data Structures, Algorithms, AI, ML, Computer Architecture, Object Oriented Programming, Java, Theory of Computation, Adv DBMS, Software Testing and Quality Assurance

PUBLICATIONS AND PROJECTS

Object and Human Tracking in 3D Space via Monocular Vision

May 2023 – Aug 2024

Master's Thesis – Penn State

etda.libraries.psu.edu/catalog/29519szs7214

- Developed novel algorithms grounded in mathematical principles to interpret 2D images for real-time 3D tracking.
- Created a monocular vision framework using Python and OpenCV to estimate 3D coordinates using 2D camera inputs.
- Devised depth estimation formulas using vanishing points and perspective projection for real-time tracking.

Blockchain-Based Digital Forensics Framework using IoT

Aug 2021 – May 2022

Research Paper – GGSIPU

doi.org/10.47974/JDMSC-1733

- Designed a lightweight private blockchain using SHA256 with custom ciphering for forensic data management.
- Engineered a decentralized network protocol using Python sockets and VPNs to connect 10+ international nodes.
- Secured file-level forensic evidence with custom encryption and ensured tamper-proof storage via block hashes.
- Ensured cross-platform blockchain consistency through asynchronous database syncing and real-time messaging.