SUNIL THAKUR

📍 Singapore

📞 +65 86708174

✉ sunilforu@gmail.com

RESUME HIGHLIGHTS

- 20+ years of software development experience, driving AI, generative AI, and data science solutions that deliver measurable business value
- 10+ years of deep expertise in artificial intelligence, machine learning, deep learning, reinforcement learning, and cross-domain AI applications
- Proven proficiency in regression, clustering, CNNs, decision trees, LSTM models, and multi-agent AI architectures
- Led the design and deployment of end-to-end AI solutions in NLP, computer vision, IoT, and LLM workflows, achieving client-facing impact
- Spearheaded agentic AI implementations, including multi-agent coordination, RAG pipelines, and tool-using AI systems for enterprise clients
- Strong background in LTE protocol stacks, embedded systems, WLAN, and Linux device driver development, optimizing performance and reliability
- Certified Project Management Professional (PMP), successfully steering complex AI/ML initiatives from strategy to production

Dynamic AI/ML senior manager with expertise in driving enterprise-wide AI transformation and optimizing system performance. Proven success in establishing scalable cloud architectures and enhancing operational efficiency through innovative AI solutions.

SKILLS

- Technical leadership in AI
- Client solutions and consulting
- Generative and agentic AI
- LLM orchestration and coordination
- Retrieval-augmented generation (RAG)
- Deep learning and machine learning
- AI frameworks and libraries
- Model deployment strategies
- Cloud computing solutions
- System performance optimization
- Software engineering practices
- Project management expertise (PMP)

EXPERIENCE

AI/ML COMPUTATIONAL DATA SCIENCE SENIOR MANAGER, 04/2023 - Current
Accenture Consulting SEA, Singapore

- Drove enterprise-wide AI transformation, establishing strategic roadmaps and scalable architectures for cloud and hybrid environments.
- Engineered Agentic AI systems with LangGraph and LangChain to manage LLMs and RAG pipelines for financial and public sector clients.
- Architected data and vector infrastructure, achieving 35% faster response times in real-time reasoning workflows.
- Established AI Ops frameworks, including CI/CD automation and model monitoring, to enhance reliability and scalability.
- Advised C-level executives on AI governance and responsible deployment frameworks for model lifecycle maturity.
- Standardized AI engineering practices across regional teams, increasing

production deployment speed by 25%.
- Mentored cross-functional squads to integrate GenAI fluency and agile experimentation into workflows.
- Championed algorithmic optimization initiatives, improving large-scale models for energy efficiency and latency reduction.

PRINCIPAL MACHINE LEARNING ENGINEER, 10/2022 - 04/2025
Gradiant International (SpaceAgeLabs Pte. Ltd.)
Architected deep reinforcement learning frameworks for optimizing industrial water recovery, enhancing efficiency by 20–25%.
- Developed adaptive LSTM-based time-series prediction models to forecast plant performance under varying conditions.
- Established continuous validation pipelines with automated retraining and model drift detection in hybrid cloud/on-prem environments.
- Standardized machine learning best practices, ensuring testing, reproducibility, and governance for industrial scalability.
- Researched and implemented innovative AI techniques for anomaly detection and predictive maintenance in smart infrastructure.
- Created domain-specific machine learning toolkits, reducing deployment time by 30% and accelerating experimentation cycles.
- Mentored data scientists and engineers, promoting a culture of applied research and experimentation across teams.
- Collaborated with R&D and product teams to transform prototypes into production-ready AI solutions.

PRINCIPAL MACHINE LEARNING ENGINEER, 10/2022 - 07/2024
Gradiant International Holdings Pte. Ltd.
- Technical leadership to develop and drive ML best practices and manage strategic ML projects.
- Research and implement appropriate ML algorithms and related tools for scalability.
- Test, validate and maintain ML models, data pipelines and related applications built on Cloud and on-prem solutions.
- Evaluate the efficacy of specific methods and techniques for given ML problems and edge cases.
- Create software design, implementation and testing as per company's engineering standards.
- Work with Time Series data sets and maintain methods for baselining and continuous model validation (CI/CD).
- Keep current of latest AI research relevant to business domains and mentor team members.

PRINCIPAL ARTIFICIAL INTELLIGENCE ENGINEER, 03/2019 - 10/2022
Continental Automotive, Singapore
- Lead AI Project for business use-cases with Business Units.
- Help AI product managers and business stakeholders understand the potential and limitations of AI when planning new products.
- Build AI models to help product managers and stakeholders understand results.
- Set up AI development infrastructure and Build data ingest and data transformation infrastructure.
- Deploy AI models into production and Create APIs to put results of your AI models into operations.

STAFF ENGINEER/PRINCIPAL ENGINEER, 10/2013 - 03/2019
ams Sensors (NXP Research Labs), Singapore

- Transformed business requirements into AI-driven embedded sensor intelligence solutions.
- Established AI integration framework in embedded systems, combining signal processing with machine learning.
- Developed and optimized Linux drivers and Android middleware for sensor evaluation applications.
- Integrated machine learning algorithms into Android stacks to enhance sensing accuracy.
- Designed and maintained firmware and software components for full system functionality.
- Provided technical support to application and field engineers for efficient problem resolution.
- Delivered product launch support via technical marketing and live demonstrations at major events.
- Collaborated with mobile OEMs on seamless implementation of new system software technologies.

EARLY CAREER - WIRELESS, NETWORKING & EMBEDDED, 07/2005 - 09/2013
Wipro, Aperto, PacketVideo, Cisco, ST-Ericsson, India
- Engineered boot code and low-level networking software for Cisco's PowerPC-based CPT systems, increasing fault tolerance and startup reliability.
- Developed embedded firmware and device drivers for Linux and Android platforms, integrating with advanced networking chipsets.
- Created embedded applications for telecom and IoT systems, achieving seamless hardware-software integration.
- Led software development for WLAN, WiMAX, and LTE systems, delivering next-generation connectivity solutions.
- Collaborated with global cross-functional teams to provide comprehensive wireless platform solutions.

EDUCATION

Yogananda School of AI, Computer And Data Science, India, Expected in 12/2026
Ph.D.: AI

BITS Pilani, India, 12/2020
Master of Science: Software Systems

NIT Hamirpur, India, 05/2005
Bachelor of Science: Electronics and Communication Engineering

WEBSITES, PORTFOLIOS, PROFILES

linkedin.com/in/thakursunil

CERTIFICATIONS

- Machine Learning and Deep Learning certifications (Coursera)
- Artificial Intelligence and Deep Learning Nanodegree (Udacity)

AI PROJECTS

- Implemented agentic AI solution for banking customer engagement, leveraging multi-agent coordination, LLM orchestration, and RAG pipelines to deliver AI-driven advisory at scale
- Deep reinforcement learning for optimizing water recovery
- Using LSTM models for set-point prediction on time-series data

- Object detection for cabin monitoring system using TensorFlow
- Smart keyless localization using UWB and machine learning
- Document classification using NLP techniques using transformers
- Facial key points detection and real-time filtering using OpenCV and convolutional neural nets
- Automatic speech recognizer using deep learning recurrent neural network (RNN)

ACCOMPLISHMENTS & PATENTS

- Unmanned moving object and method of operation
- Unmanned moving objects and methods of localization
- Pose classification and in-cabin monitoring methods, and associated systems
- In the cabin monitoring method and related pose pattern categorization method
- Method of detecting identification number

SPECIALIZED EXPERTISE & CURRENT FOCUS AREAS

- Implemented an agentic AI solutions for banking customer engagement, leveraging multi-agent coordination, and LLM
- Orchestration and RAG pipelines to deliver AI-driven advisory at scale
- Architected and deployed Agentic AI solutions, including multi-agent system orchestration, and tool-using AI agents and LLM/RAG pipeline implementations
- Designed and optimised enterprise-grade AI systems to deliver measurable business value and strategic client outcomes.
- Lead generative AI initiatives for client transformation, building scalable LLM workflows with high performance vector databases.
- Implement AI Ops best practices, ensuring production-grade reliability, observability, CI/CD automation, and Cost-efficient deployments
- Drive adoption of cutting-edge AI research, including RLHF, prompt engineering, and agentic AI advancements to Continuously evolve enterprise AI capabilities

REFERENCES

References available upon request.