Vinamra Sharma

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Summary

PhD student in Computing Science at the University of Glasgow, researching AI Compilers. Experienced in EdgeAI, on-device learning, and end-to-end AI system development with a strong record of interdisciplinary collaboration and 65+ hackathon awards worldwide. Passionate about advancing lives and generating value through applied technology.

Technology Stack and Skills

Programming Languages: Python3, C++, C, JavaScript, Swift, OCaml
Libraries: NLTK, TensorFlow, PyTorch, Keras, Pandas, Numpy, OpenNN, Selenium, OpenCV
Frameworks: FastAPI, React.js, LangChain, Flask, TensorFlow Lite, uTensor, Streamlit, Gradio, LlamaIndex, Ollama
LLM APIs/SDKs: OpenAI SDK, Llama 2.0 and 3.0, Gemini, Perplexity Sonar, DeepSeek, ElevenLabs, Grok, Mistral
DevOps and Cloud Servers: Git, Docker, AWS Lambda, Hugging Face, Google Cloud Platform, Vercel, Linux Servers
Tools: Notion, Jira, n8n, Coursor/Bolt.new/v0 (Vibe Coding), OxyLab (Scraping via API)

Education

University of Glasgow	**Oct 2025 – Present**
PhD in Computing Science	**Research Focus: AI Compilers**
University of Glasgow	**Sep 2022 – Sep 2023**
MS in Computing Science	**Thesis Grade: A3**
BTKIT, Uttarakhand Technical University	**Aug 2018-Aug 2022**
B.Tech in Computer Science and Engineering	**Scores: 83.3% (Honors)**

Work Experience

AI Engineer at Unineed Limited (Glasgow, UK)   **July 2024 – Present**
- Architected end-to-end GenAI solutions for customer service, processing 17,000+ Amazon queries daily, saving 150+ team-hours weekly and improving response time by 260%.
- Developed an AI-powered buying engine that scrapes 25+ global marketplaces, reverse-calculates profit margins, and auto-orders products to maximize profit, boosting team efficiency 5x.
- Created pipelines for product image generation and SEO content, driving the website's organic growth, adding £500k+ ARR, optimizing page load time by 8x, and improving Google Ads ranking, CTR, conversion rate, and ROAS by 3x within five months.

Full Stack Developer at Amped Digital (Glasgow, UK)   **Aug 2023 - July 2024**
- Led the end-to-end delivery of a data-centric, AI-driven web platform for real-time marketing KPI analysis and prediction, built with Agile methodology, secured £50,000 in UKRI funding, and delivered robust, scalable solutions.
- Deployed multiple machine learning and data pipelines that powered real-time analytics and insights, driving data-informed decision making.
- Optimized GCP infrastructure and integrations, improving system reliability, performance, and deployment velocity along with 36% cost reduction.

Awards & Accomplishments

- **2025:** Best of the Rest Award Winner (Climate Change Maker Challenge 2025), 3rd Prize (Animal Hacks 2025), Winner (AI in the Outback)
- **2024:** Best Paper in Track Award (IEEE RTSI 2024), Employee of the Month Award at Unineed Limited, 2nd Prize for Poster Presentation by IEEE, Selected as Youth STEM Changemaker (Youth STEM 2030), Best Pitch Award (Pitch for Earth, Sweden)
- **2023:** Winner Hack for Earth 2023 (Invited to work with UNICEF), Runner-up Amazonia Hack (Earth Hacks, Brazil), Runner-up Code to Give (Morgan Stanley, UK), Winner FDM Design Challenge (Glasgow, Scotland), Mystery Award Winner the Climate Change Maker 2023, Best Chinachem Group Award at PolyHack 2023 (China)
- **2022:** Best of the Rest Award in The Climate Change Maker (YIC, Canada), Design Your Future Award in MakeUC (University of Cincinnati), Winner Amazonia Hack 1.0, First Position in Healthcare Ideation at MED INVADE 2022 (SMR, India)
- **2019- 2021:** Inequality Track winner and Best Media Hack Award in HackDuke (Duke University, USA), Winner HackTCMX 1; Winner BioHacks2021(UCR, USA); Winner MakeMIT2021(MIT, USA); Runner up Synaptic Hacks (India), Best Research Paper Award(5th-ICCCS); Best Research Paper Award (ICACCE 6th); All India Rank 12(IEEEXtream 14.0) All India Rank 26(IEEEXtream 13.0); Merit Based Scholarship (Among Top 5 Student of class)

Projects

- **MimixAI:** AI-powered market research tool that creates human-like personas to interact with in real time to get instant qualitative feedback.
  Magellan AI : An AI Tour Guide: Vision + NLP powered interactive travel guide that personalizes tours in real time.
- **Eatbly:** Smart nutrition planner application that generates personalized meal plans.
- **TerraVerde:** Data driven platform for accelerating renewable-energy site selection and permitting.
- **SustainEdge:** GenAI webapp that evaluate AI model carbon footprints and recommend the most energy-efficient option.
- **SpreadRo:** An autonomous multipurpose rover that seeds grass in summer and spreads ice melt in winter.

Recent Publications

- Sharma, V., Pau, D. and Cano, J. (2025) EdgeAI Models for Human Activity Recognition on Low-Power Devices, Seventh UK Mobile, Wearable and Ubiquitous Systems Research Symposium. (Abstract Link)
- Sharma, V., Pau, D. P., & Cano, J. (2025). Biases in Edge Language Models: Detection, Analysis, and Mitigation. arXiv e-prints, arXiv-2502. (Paper Link)
- Sharma, V., Pau, D., & Cano, J. Efficient Tiny Machine Learning for Human Activity Recognition on Low-Power Edge Devices. In 2024 IEEE 8th Forum on Research and Technologies for Society and Industry Innovation (RTSI) (pp. 85-90). IEEE. (Paper Link)
- Gautam, Himanshu, Vishal Kumar, and Vinamra Sharma." Phishing Prevention Techniques: Past, Present and Future." Proceedings of Integrated Intelligence Enable Networks and Computing. Springer, Singapore, 2021. 83-98. (Paper Link)

Extracurricular Involvements

Organizer at Google Developer Group Glasgow (Dec 2023 - Present) | **Youth STEM Changemaker** at Youth STEM 2030 | **Founder** at **Mcurio** & ClimateThread (May 2021- Present) | **Policy for People Fellow** at Harvard Innovation Labs (2021) | **Technology Lead** at POWAN (2022)