

Gaurang BANSAL

Founder, AdScape | Computer Science Expert, Turing
IEEE Senior Member | Google PhD Fellow | Ph.D., NUS

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PROFESSIONAL SUMMARY

Gaurang Bansal (Ph.D., NUS) is the Founder of AdScape, a Meta Ad Library intelligence platform (dashboard + REST API over 240M+ Facebook & Instagram ads), and a Computer Science Expert at Turing, where he accelerates frontier AI research with high-quality evaluation data and expert critique across coding, reasoning, STEM, multilinguality, multimodality, and agents—including Claude Opus—class model evaluation through Turing’s lab partnerships. He previously co-founded QuickAds (Stevie Award; Kae Capital-backed; 30K+ brands) and served as Director at Vedastu Applications Pvt. Ltd.; he left both roles in August 2025. He is a Google PhD Fellow, NUS President Fellow, and IEEE Senior Member, with 30+ peer-reviewed publications and 2,200+ citations in machine learning, cryptography, privacy, and web/IoT/UAV security. Stack: Python (FastAPI), PostgreSQL, Next.js/React, AWS, and modern LLM APIs.

EDUCATION

August 2020 Jan 2025	Doctor of Philosophy, (PRIVACY & SECURITY), National University of Singapore > Thesis: Advanced Security Protocols for lightweight IoT Device Communications. > Advisor: Prof. Biplab Sikdar, (HoD & Professor, NUS) Cybersecurity Networking Artificial Intelligence Cryptography Algorithm Design and Analysis Machine Learning.
August 2018 June 2020	M. Tech, (COMPUTER SCIENCE), BITS Pilani > Thesis: On-Chip Security Solutions for Enhanced Lightweight IoT Protocols. > Advisor: Prof. Vinay Chamola (Associate Professor, BITS Pilani) Hardware Security Optimisation Cryptography Network Security Internet of Things. Algorithm Design
August 2014 June 2018	B. Tech, (COMPUTER SCIENCE), BITS Pilani > Thesis: 3D V-Net Segmentation Based Enhanced Lung Cancer Detection. > Advisor: Prof. Sundaresan Raman (Assistant Professor, BITS Pilani) Image Processing Computer Vision Machine Learning Deep Learning Data Augmentation Pattern Recognition.

EXPERIENCE

2025 Present	Founder, AdSCAPE, https://adscape.in > Product: Meta Ad Library intelligence — Discover dashboard + REST API for 240M+ Facebook & Instagram ads; no Graph token or managed scrapers required. > Contribution: Founded and shipped the full stack (product, API, infra, pricing). Unified account model for dashboard and API; brand typeahead, cursor pagination (≤ 500 ads/call), cloaked media download, AI ad analyser, and weekly brand/keyword intel reports. > Outcomes: Live SaaS (plans from \$49/mo); used by agencies, founders, and builders wiring Meta ads into pipelines. Next.js React FastAPI/Python PostgreSQL AWS
2025 Present	Computer Science Expert, TURING, https://www.turing.com > Role: Frontier AI research acceleration — high-quality evaluation data, pipelines, and expert critique. > Contribution: Systematic failure-finding and preference/RL annotations across data science, ML, research-writing, and multimedia workflows; coverage in coding, reasoning, STEM, multilinguality, multimodality, and agents. > Impact: Supported Claude Opus—class iteration cycles (including 4.5 $\rightarrow$ 4.8 / Fable) through Turing’s lab partnerships. LLM evaluation Preference/RL data STEM & coding critique Multimodal AI

Jan 2024 Aug 2025	Co-Founder, QUICKADS, https://www.quickads.ai > Product: AI performance-creative platform powered by insights from 30M+ ads; image & video generation with human operators. > Co-Founders: Nitin Mahajan, Gourav Sharma > Contribution: Co-founded the company; drove product/engineering for Discover (multi-platform ad intelligence), brand kits, multi-format export, and campaign workflows across Meta, Google/YouTube, Amazon, and TikTok. > Outcomes: 30K+ brands, 120+ countries, 500K+ ads generated; Stevie Award for AI innovation; App-Sumo breakout; VC-backed growth (Kae Capital). Left August 2025 to focus on AdScrape and Turing. FastAPI PostgreSQL Next.js/React AWS OpenAI/Gemini APIs
Sep 2024 Aug 2025	Director, VEDASTU APPLICATIONS PVT. LTD., India > Responsibilities: Day-to-day operations, strategic planning, and organizational development. Led HR (recruitment, team building, performance), technology roadmap, software delivery, and regulatory/corporate governance. Business Strategy HR Management Product Development Operations
Aug 2023 Sep 2024	Research Collaborator, GOOGLE, Singapore > Title: PhishNet / PhishDynamics — real-time Chrome plugin for unsupervised phishing identification using LLMs. > Collaborators: Sai Teja Peddinti (Google); Dinil Mon Divakaran (NUS) > Contribution: Real-time phishing detection via unsupervised learning and LLMs; immediate URL verification and server-side processing with image transformers, autoencoders, and classifiers. Reported ~99.6% accuracy vs. baselines such as Phishpedia, OpenPhish, and VirusTotal, with continuous adaptation and reduced reliance on large labeled datasets. Cybersecurity Machine Learning LLMs Selenium Browser Plugin
2020 2025	Doctoral Researcher, NATIONAL UNIVERSITY OF SINGAPORE (ECE), Singapore > Focus: Machine learning, cryptography, privacy, and web / IoT / UAV security. > Collaborators: Biplab Sikdar (NUS), Dusit Niyato (NTU), F. Richard Yu (Carleton), Nirwan Ansari (NJIT), Vinay Chamola (BITS Pilani), and others. > Contributions: Advanced authentication and cryptographic protocols for resource-constrained networks; formal security analysis and adversarial threat modeling. 30+ publications; Google PhD Fellowship & NUS President Fellowship. Cryptographic protocols ML security formal methods IoT/UAV
May 2022 Jan 2023	Tech Lead Researcher, DRIFE, Bangalore > Title: Achala — decentralized mobility with blockchain-integrated geospatial systems. > Collaborators: Mudit Marda (CTO, DRIFE); Vikas Hassija (KIIT) > Contribution: Architected a distributed ledger for mobility primitives; decentralized ride-sharing and geospatial indexing / geo-query / geo-fence in a peer-to-peer framework. Distributed ledgers Python Real-time geo-indexing Geo-fencing

PUBLICATIONS

J = Journal | C = Conference

- [J23] G. Bansal and B. Sikdar, "Peer2Peer Mutual Authentication-Attestation Protocol in UAV Swarms," *IEEE Internet of Things Journal*, 2024 (IF: 10).
- [J22] A. Madan, G. Bansal, V. Chamola, and D. Tipper, "Enhancing Infectious Disease Outbreak Surveillance via Bidirectional Contact Tracing," *IEEE Sensors Journal*, 2024 (IF: 4.3).
- [J21] G. Bansal, "An Optimal Pricing Based Spectrum Allocation Model in Broadband Market," *IEEE Transactions on Cyber Physical Systems*, 2023.
- [J20] G. Bansal, M. Baser, and V. Chamola, "Three-Tier Indirect Tracing Model for Enhancing Epidemic Surveillance," *IEEE Internet of Things Magazine*, 2023.
- [J19] G. Bansal, V. Chamola, M. Guizani, and D. Niyato, "Transforming Conversations with AI - A Comprehensive Study of ChatGPT," *Cognitive Computation*, 2023 (IF: 5.4).
- [J18] G. Bansal, V. Chamola, A. Jolfaei, and S. Mumtaz, "Cracking the Dark Web: Attacks in Tor Network," *IEEE Internet of Things Magazine*, 2023.

- [J17] G. Bansal, A. Nawal, V. Chamola, and N. Herencsar, "Prose to Pixels: Generative AI's Impact on Consumer Electronics Imaging," *IEEE Transactions on Consumer Electronics*, 2023 (IF: 4.3).
- [J16] G. Bansal, K. Rajagopal, V. Chamola, Z. Xiong, and D. Niyato, "Healthcare in Metaverse: A Survey on Current Metaverse Applications in Healthcare," *IEEE Access*, 2023 (IF: 3.6).
- [J15] G. Bansal and B. Sikdar, "Achieving Secure and Reliable UAV Authentication: A Shamir's Secret Sharing Based Approach," *IEEE Transactions on Network Science and Engineering*, 2023 (IF: 6.6).
- [J14] G. Bansal, A. Tyagi, and V. Chamola, "PUF Based Fault Tolerant Authentication Protocol for Vehicle to Smart Grid Communications," *Vehicular Communications*, 2023 (IF: 8.8).
- [J13] V. Chamola, G. Bansal, T. Kumar, V. Hassija, N. S. S. Reddy, J. Wang, S. Zeadally, A. Hussain, F. R. Yu, M. Guizani, and D. Niyato, "Beyond Reality: The Pivotal Role of Generative AI in the Metaverse," *IEEE Internet of Things Magazine*, 2023.
- [J12] G. Bansal, V. Chamola, B. Sikdar, and N. Ansari, "Scalable Topologies for Time-Optimal Authentication of UAV Swarms," *IEEE Network Magazine*, 2022 (IF: 10.3).
- [J11] G. Bansal, N. Naren, V. Chamola, and B. Sikdar, "SHOTS: Scalable Secure Hardware Based Authentication-Attestation Protocol Using Optimal Trajectory in UAV Swarms," *IEEE Transactions on Vehicular Technology*, 2022 (IF: 6.8).
- [J10] G. Bansal and B. Sikdar, "Beyond Traditional Message Authentication Codes: Future Solutions for Efficient Authentication of Message Streams in IoT Networks," *IEEE Internet of Things Magazine*, 2022.
- [C11] G. Bansal and B. Sikdar, "Fault Resilient Authentication Architecture for Drone Networks," *IEEE ICC Workshop*, 2022.
- [C10] G. Bansal and B. Sikdar, "Secure and Trusted Attestation Protocol for UAV Fleets," *IEEE INFOCOM Workshop*, 2022.
- [J9] T. Alladi, N. Naren, G. Bansal, V. Chamola, and M. Guizani, "SecAuthUAV: A Novel Authentication Scheme for UAV-Ground Station and UAV-UAV Communication," *IEEE Transactions on Vehicular Technology*, 2021 (IF: 6.8).
- [J8] G. Bansal, V. Chamola, G. Kaddoum, M. J. Piran, and M. Alrashoud, "Next Generation Stock Exchange: Recurrent Neural Learning Model for Distributed Ledger Transactions," *Computer Networks*, 2021 (IF: 5.5).
- [J7] G. Bansal, V. Chamola, B. Sikdar, and F. R. Yu, "UAV SECaaS: Game-Theoretic Formulation for Security as a service in UAV Swarms," *IEEE Systems Journal*, 2021 (IF: 4.8).
- [C9] G. Bansal and B. Sikdar, "A Secure and Efficient Mutual Authentication Protocol Framework for Unmanned Aerial Vehicles," *Globecom Workshop*, 2021.
- [J6] G. Bansal and B. Sikdar, "Location Aware Clustering: Scalable Authentication Protocol for UAV Swarms," *IEEE Networking Letters*, 2021.
- [J5] G. Bansal and B. Sikdar, "S-MAPS: Scalable Mutual Authentication Protocol for Dynamic UAV Swarms," *IEEE Transactions on Vehicular Technology*, 2021 (IF: 6.8).
- [C8] G. Bansal and B. Sikdar, "Security Service Pricing Model for UAV Swarms: A Stackelberg Game Approach," *DroneCom, INFOCOM Workshop*, 2021.
- [C7] G. Bansal, A. Tyagi, V. Narayanan, and V. Chamola, "Hardware Testbed based Analytical Performance Modelling for Mobile Task Offloading in UAV Edge Cloudlets," *VTC Workshop*, 2021.
- [C6] G. Bansal and A. Bhatia, "A Fast, Secure and Distributed Consensus Mechanism for Energy Trading Among Vehicles Using Hashgraph," *Proceedings of IEEE International Conference on Information Networking (ICOIN), Barcelona, Spain*, 2020.
- [C5] G. Bansal and V. Chamola, "Lightweight Authentication Protocol for Inter Base Station Communication in Heterogeneous Networks," *BlockSecSDN, INFOCOM Workshop*, 2020.
- [J4] G. Bansal, V. Chamola, P. Narang, S. Kumar, and S. Raman, "Deep3DSCan: Deep Residual Network And Morphological Descriptor Based Framework for Lung Cancer Classification And 3D Segmentation," *IET Image Processing Journal*, 2020 (IF: 2.7).
- [C4] G. Bansal, N. Naren, and V. Chamola, "RAMA: Real-Time Automobile Mutual Authentication Protocol Using PUF," *Proceedings of IEEE International Conference on Information Networking (ICOIN), Barcelona, Spain*, 2020.
- [J3] G. Bansal, N. Naren, V. Chamola, B. Sikdar, N. Kumar, and M. Guizani, "Lightweight Mutual Authentication Protocol for V2G Using PUF," *IEEE Transactions on Vehicular Technology*, 2020 (IF: 6.8).
- [J2] V. Hassija, G. Bansal, V. Chamola, N. Kumar, and M. Guizani, "Secure Lending: Blockchain and Prospect Theory-Based Decentralized Credit Scoring Model," *IEEE Transactions on Network Science and Engineering*, 2020 (IF: 6.6).
- [C3] S. Kumar, G. Bansal, and V. Shekhawat, "A Machine Learning Approach for Traffic Flow Provisioning in Software Defined Networks," *Proceedings of IEEE International Conference on Information Networking (ICOIN), Barcelona, Spain*, 2020.
- [C2] G. Bansal, A. Dua, G. S. Ajula, M. Singh, and N. Kumar, "SmartChain: A Smart and Scalable Blockchain Consortium for Smart Grid Systems," *IEEE International Conference on Communications, Shanghai, China*, 2019.

- [J1] G. Bansal, V. Hassija, V. Chamola, N. Kumar, and M. Guizani, "Smart Stock Exchange Market: A Secure Predictive Decentralised Model," [Proceedings of the 2019 IEEE Globecom, Big Island, HI, USA, 2019](#).
- [C1] V. Hassija, G. Bansal, V. Chamola, V. Saxena, and B. Sikdar, "Blockcom: A blockchain based commerce model for smart communities using auction mechanism," [IEEE International Conference on Communications, Shanghai, China, 2019](#).

SKILLS

Product & AI	Generative AI / LLM evaluation, Ad intelligence & creative systems, End-to-end SaaS (0→1 and scale)
Programming	Python (FastAPI), TypeScript/JavaScript, C/C++, HTML/CSS
Libraries	PyTorch, TensorFlow, Scikit-Learn, Matplotlib, Plotly
Frameworks	Next.js, React, FastAPI
APIs & Models	OpenAI, Gemini, Hugging Face, Claude (via Turing lab work)
Cloud & Data	Amazon AWS, PostgreSQL
Version Control	Git, GitHub
Security	Cryptography, phishing detection, IoT/UAV security, formal methods
Office	LaTeX, Microsoft Office, Power BI

COORDINATOR

Co-Chair	> IEEE PERCOM 2022 Workshop > IEEE INFOCOM 2022 Workshop > IEEE GLOBECOM 2021 Workshop
TPC	> IEEE ICC > IEEE WiMob > IEEE INFOCOM

TEACHING

Courses	> Artificial Intelligence > Computer Networks > Network Security > Cryptography > Machine Learning
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AWARDS, GRANTS AND FELLOWSHIPS

2024	IEEE Senior Member
2022	Google PhD Fellowship (USD \$ 20,000)
2022	Co-Principal Investigator, ASEAN-India Grant, DST, India (USD \$ 43,000)
2021	Student Grant, Internet Engineering Task Force (IETF) (USD \$ 1800)
2021	Keynote Speaker, University of Cape Town
2020	NUS President Graduate Fellowship (USD \$ 95,000)
2018	Prototype Development, APOGEE, BITS Pilani (WINNERS)
2014	Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship
2013	National Mathematical Olympiad (Rank: 1)

REFEREES

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