# **BHASKAR GOYAL**

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#### PROFESSIONAL SUMMARY

Internationally recognized AI/ML Software Engineer and leading expert in AI and Cloud Integration with a focus on Scalable and Secure Enterprise Platform Architecture, with 7 years of pioneering experience in designing and deploying transformative AI/ML solutions at globally renowned technology leaders including Google, Goldman Sachs, and Expedia. Recipient of multiple prestigious international awards, including several Platinum and Gold accolades from the TITAN Innovation Awards, TITAN Business Awards, and Noble Business Awards, recognizing exceptional achievements in Artificial Intelligence Technology Innovation, Information Technology, and Outstanding Leadership in AI Innovation. Authored multiple peer-reviewed scholarly articles in high-impact international journals and featured in prominent technology publications such as Tech Bullion, Analytics Insight, and The Guardian NG for contributions to AI and cloud computing. Demonstrated **profound impact** through the development of market-leading, revenue-generating AI platforms and critical risk management systems. Esteemed contributions to the field are further evidenced by election as a Royal Fellow of the International Organization for Academic and Scientific Development (IOASD), a Fellow of the Hackathon Raptors Community Interest Company, and a Full Member of Sigma Xi, The Scientific Research Honor Society. Regularly invited to serve as a judge for prestigious international awards (e.g., Awards for AI, Disruptors, and Business Achievement) and as a technical reviewer for leading international conferences and journals (e.g., ICLR, IJCNN). Proven ability to spearhead high-impact projects, drive innovation in Advanced Computing (Cloud Services, LLMs, XAI), and champion responsible AI development. Seeking to leverage extraordinary abilities and a track record of significant contributions to advance the frontiers of ethical and trustworthy AI.

#### **TECHNICAL SKILLS**

**Artificial Intelligence Specialties:** Large Language Models (LLMs), Conversational AI, Explainable AI (XAI), Deep Learning, Supervised Learning, Reinforcement Learning, Computer Vision, Natural Language Processing (NLP)

**Machine Learning Tools:** PyTorch, TensorFlow, NumPy, Scikit-learn **Languages:** C/C++, Java, JavaScript, React.js, Python, SQL, Typescript

**Databases:** PostgreSQL, MySQL, MongoDB **Distributed Computing:** Ray, Apache Spark **Web Technologies:** REST APIs, HTML, CSS, React

Container Tools: Docker, Kubernetes, Istio

#### **WORK EXPERIENCE**

# Software Developer III, Google

July 2022-Present

- Spearheaded architecture and implementation of Project Model as a Service on Vertex AI, a secure ML model
  marketplace enabling deployment of leading models (e.g., Anthropic, Mistral). Engineered multi-tenant systems
  ensuring IP protection, generating \$10M+ revenue from 5,000+ customers, establishing a new AI
  commercialization standard and influencing executive strategy through direct demos.
- Architected and implemented Project Ray on Vertex AI, integrating Ray's distributed computing with Vertex AI.
   Designed Ray Serve for model deployment, enhancing MLOps integration and driving a 250% increase in adoption, significantly expanding Google Cloud's market footprint in scalable AI.
- Engineered the Cloud Media ML Management System for automated, ML-driven video analysis on Google Cloud.
- Led design of high-performance architectures for ML training, evaluation, and deployment using advanced computing and specialized hardware (e.g., for large language models on Vertex AI, BigQuery).

# Senior Technical Analyst, Goldman Sachs

- Dec 2019-Jan 2021
- Led development of Project SafeGuard, a centralized risk management system. Designed and engineered the
  widely adopted 'Forml' library, improving risk analysis performance by 40x and UI load times by 5x, setting new
  firm-wide efficiency benchmarks.
- Designed and developed Project Business Resilience (BRES), an automated risk detection and alerting system,
   preventing over \$5M in potential losses by identifying 30+ critical risks and enhancing risk posture.
- Engineered scalable software architectures for high-frequency trading risk management, significantly reducing operational overhead and optimizing risk capital allocation.

# Software Developer II, Expedia

Jul 2018-Nov 2019

- Spearheaded migration to a microservice architecture for Expedia Corporate Travel's Approval Management
  System, leading consolidation of North America & Europe codebases (20% to 100%). Designed adaptive multi-level
  approval systems, driving a 40% user adoption increase and safeguarding \$750K+ in daily travel revenue.
- Defined technology roadmaps and directed design initiatives for scalable, high-performance travel solutions, integrating emerging technologies to enhance technical capabilities.

#### **EDUCATION**

# **Master in Sciences, Computer Science (Honors)**

Jan 2021-May 2022

University of Southern California

Los Angeles, CA

• GPA - 4.0, Honors Student - Awarded to top 1%; Recipient of Certificate of Merit, Master's Student Honors Program

# **Bachelors in Sciences, Computer Science**

Aug 2014-May 2018

Delhi Technological University

Delhi, India

• GPA - 4.0, Class Rank 1

# **PUBLICATIONS**

# **Scholarly Articles**

- Understanding cloud-native AI: The foundation of scalable platform architecture. World Journal of Advanced Engineering Technology and Sciences, Vol. 15, No. 1, pp. 822-827. DOI:10.30574/wjaets.2025.15.1.0251. Goyal, B. (2025).
- Augmented Intelligence for Cloud Architects: AI-Powered Tools for Design and Management. European Journal of Computer Science and Information Technology, Vol. 13, No. 6, pp. 54-62. DOI:10.37745/ejcsit.2013/vol13n65462. Goyal, B. (2025).
- AI and Cloud in Financial Services: Transforming Fraud Detection and Risk Management. International Journal of Advanced Research in Science, Communication and Technology, Vol. 5, No. 6, pp. 181-188. DOI:10.48175/IJARSCT-25326. Goval, B. (2025).
- Decoding Secure AI Deployment in Cloud Environments. International Journal of Scientific Research in Computer Science, Engineering and Information Technology, Vol. 11, No. 2, pp. 3602-3609. DOI:10.32628/CSEIT25112835. Goyal, B. (2025).

#### MEDIA COVERAGE

- The Guardian NGR
  - Unlocking the Power of Cloud-Native AI: A New Era of Scalability and Efficiency.
  - Featured for my expert perspective on the core innovations of cloud-native AI, highlighting its transformative impact on enabling unprecedented scalability, resilience, and operational efficiency for enterprise AI deployments through technologies like containerization and Kubernetes.
- Analytics Insight
  - · Artificial Intelligence: Revolutionizing Cloud Architecture Design and Management. Link
  - Featured for my insights on how AI-powered tools and augmented intelligence are transforming cloud architecture, enabling architects to design more resilient, adaptable, and cost-efficient systems.
- Tech Bullion
  - Bhaskar Goyal: Shaping the Future of AI Through Innovation and Vision.
  - Profiled as a technology leader and innovator, detailing my contributions to AI and cloud infrastructure at industry giants like Google, Goldman Sachs, and Expedia, and my vision for responsible, enterprise-grade AI systems.

## AI Model Capacity Guarantee and Predictable Pricing System, Platinum Winner, 2025

- Awarded for "Innovation in Technology" and "Best Artificial Intelligence Technology Innovation". Enabled Google
  ML Platform to offer near 1000 QPS for LLM models with high reliability (99.9% success rate) and predictable
  latency, backed by SLAs. Handles massive scale (token counts > 100k/sec). Hence, securing double-digit million
  dollar revenue.
- TITAN Innovation Awards

## AI Platform Performance & Third-Party Model Integration, Platinum Winner, 2025

- Awarded for "Information Technology" and "Artificial Intelligence" categories for generating \$10M+ revenue from 5,000+ customers. Contributed to economic growth by making advanced AI tools more accessible to businesses of various sizes.
- · TITAN Business Awards

# Dedicated AI Inference Solution for Predictable Performance, Platinum Winner, 2025

- Recognized for "Outstanding Leadership in AI Innovation". Significantly optimized Google Cloud's hardware
  resource utilization, reducing operational costs and allowing for more competitive pricing. Expanded the potential
  market for third-party AI models by offering a more accessible entry point. Contributed to the multi-million dollar
  monthly revenue of Model as a Service.
- Noble Business Awards

#### Secure AI Framework for Proprietary Model Deployment and Monetization, Gold Winner, 2025

- Recognized for "Outstanding Achievement in Cloud Computing and SaaS". Directly enabled Google to onboard
  strategically vital AI partners like Anthropic and Mistral, supporting major investments and securing key
  differentiators. Created the technical foundation for the AI model section of the Google Cloud Marketplace, opening
  significant new revenue potential and fostering a vibrant AI ecosystem.
- Noble Business Awards

#### Academic Achievement - Class Rank 1, 2018

- Scholarship for outstanding academic accomplishment and performance.
- Nominated and elected to the Master's Honors Program for continuous achievement.

#### Winner of ShopClues Spark 2 Hackathon, 2017

- Developed SHAKTI (Safety from Harassment and Kidnapping, Eve Teasing Interface), a communication system enabling distress and SOS messaging without reliance on cellular networks or internet services.
- SHAKTI employs connectionless datagram packets to ensure reliable emergency communication in critical situations.

## Richard E. Merwin, IEEE Computer Society, 2016

- Recognized for exemplary performance—selected among only 40 students from over 100,000 applications by the IEEE Computer Society USA.
- Served as Web Head for IEEE North India and as an IEEE Ambassador.

# **Innovation in Science Pursuit for Inspired Research, 2014**

 Awarded by the Department of Science and Technology, Government of India, in 2012 for excellence in scientific research and academic performance.

#### PROFESSIONAL AFFILIATIONS

#### **Royal Fellow**

International Organization for Academic and Scientific Development (IOASD)

April 2025

• The highest honor bestowed by IOASD (Membership ID: FRIOASD-501/2025), recognizing substantial contributions to academic research and technological advancement, particularly in AI and Cloud Integration.

#### **Fellow**

Hackathon Raptors Community Interest Company

April 2025

- Elected Fellow (Membership ID: 12247) in a global community dedicated to innovation and collaborative problem-solving through technology.
- Acknowledged for leadership in developing impactful systems (e.g., SafeGuard) and expertise in AI/ML.

#### Elected May 2025

• Elected to the world's largest multidisciplinary research honor society (Member ID: 20259992535) for demonstrated noteworthy achievements in scientific research and engineering.

## **Member of Technical and Professional Organizations:**

- AI 2030
- International Association of Engineers (IAENG)
- Society for Information Management (SIM)
- International Institute of Certified Cybersecurity Professionals (IICSPA)

#### PEER REVIEW & JUDGING ACTIVITIES

# **Conference Program Committee / Reviewer**

- International Joint Conference on Neural Networks (IJCNN), 2025
- International Conference on Learning Representations (ICLR) Workshop on Foundational Models in the Wild (FM-Wild), 2025
- International Conference on Learning Representations (**ICLR**) Workshop on Explainable AI for Science (XAI4Science), 2025
- · Conference on Health, Inference, and Learning (CHIL)
- 1st Int'l Conference on Green Artificial Intelligence and Industrial Applications (GreenAI-2025), Springer
- IEEE 8th Int'l Conference on Electrical, Control and Computer Engineering (InECCE2025)

#### **Journal Reviewer**

- International Journal of Advanced Research in Arts, Science, Engineering & Management (IJARASEM), 2025 (Reviewed "Real-Time Market Decision Making Using Support Vector Regression Algorithms" & Appointed Reviewer)
- International Journal of Multidisciplinary Research in Science, Engineering, Technology & Management (IJMRSETM), 2025 (Reviewed "Emotion-Aware Movie Recommendation System Using Machine Learning" & Appointed Reviewer)

#### **Industry Awards Judge**

- Globee Awards for Disruptors, 2025
- Globee Awards for Artificial Intelligence, 2025
- Globee Awards for Business Achievement (American Business Awards), 2025

# **SPEAKING ENGAGEMENTS & LEADERSHIP**

- Invited Speaker, Cloud-Native AI at Scale: Architectural Patterns for Enterprise Success. Presented to an
  audience of approximately 300 industry professionals at Conf42 Machine Learning 2025, sharing insights on
  enterprise AI deployment, performance, and ROI.
- Invited Speaker, Polymer Technology. Google Web Developer Days, 2019. Presented to an audience of approximately 250 developers.
- Executive Board Member, 2018, IEEE Chapter Ambassador, and served as Web Head for IEEE North India.