Manuj Paliwal

Engineering Manager | AI/ML Platforms | Scalable Systems

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PROFESSIONAL SUMMARY

Engineering leader with **12+ years** building and scaling teams that deliver intelligent, consumer-facing platforms. Led engineering team of 10 through successful acquisition (Cloud Lending → Q2), owning roadmaps, hiring, and cross-functional delivery for platform serving 50+ financial institutions across 4 continents. Founded VC-backed startup (Alliance DAO, TechCrunch featured) as technical co-founder. Deep expertise in AI/ML systems, Agile delivery, and developing engineers to senior roles.

PROFESSIONAL EXPERIENCE

Staff Software Engineer

App0 | Bengaluru, India | *Sep 2023 – Oct 2025*

- Architected conversation analytics platform powering consumer interactions for ecommerce merchants, processing **10,000+ monthly conversations** with real-time semantic matching and topic modeling
- Designed 3-layer cascading AI security guardrails (Pattern → Moderation → ML) achieving **93% prompt injection detection** at **0ms perceived latency** across 65+ attack patterns
- Architected agentic tool calling framework with 59 LLM tools across 7 categories, supporting pre/post-processing pipelines used across all conversation flows
- Built RAG Knowledge Base platform with multi-source connectors (S3, Google Sheets, Web, Local) and async retrieval pipeline serving production workloads
- Designed extensible AI evaluation framework with plugin-based registry supporting 5 evaluator types, enabling systematic quality assessment across models
- Optimized batch processing achieving **90% faster deduplication** through single-scan optimization; reduced database queries by **80%** via in-memory caching

Technologies: Python, FastAPI, AWS (Lambda, DynamoDB, S3, SQS), PostgreSQL (pgvector), OpenAI, BERT, TypeScript

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Co-Founder & CTO

Mensari (Alliance DAO & Georgia Tech backed | TechCrunch featured) | *May 2022 - Sep 2023*

- Co-founded crypto treasury platform as technical co-founder; defined product vision, technical architecture, and go-to-market roadmap
- Built and led cross-functional engineering team; established Agile processes including sprint planning, daily standups, and retrospectives
- Architected multi-chain infrastructure with real-time indexing across 6 networks and Gnosis Safe multi-sig support; shipped to 15 beta customers
- Built declarative rule engine enabling 100% automated transaction classification; integrated bidirectionally with QuickBooks and Xero

Technologies: Next.js, Node.js, TypeScript, MongoDB, Web3, Alchemy SDK, AWS, Docker, Kubernetes

Software Engineer → Engineering Manager

Q2 Software (Cloud Lending Solutions pre-acquisition) | Bengaluru, India | *Nov 2013 - Apr 2022*

Team Leadership & People Management

- Led engineering team of **10 engineers** across multiple product verticals through successful Q2 acquisition, delivering highest revenue-generating product with zero attrition
- Conducted regular 1:1s, performance reviews, and career development conversations; **mentored 3 engineers to senior roles**
- Owned hiring pipeline end-to-end: defined job requirements, conducted technical interviews, made hiring decisions
- Partnered with Product and Business stakeholders to define quarterly roadmaps; represented engineering in executive planning sessions
- Drove Agile transformation: sprint planning, daily standups, retrospectives, and CI/CD pipeline implementation

Technical Delivery & Architecture

- Architected multi-tenant loan origination platform serving **50+ financial institutions** across North America, UK, Africa, and ANZ
- Built Rule Engine powering core platform: scorecard generation, document management, pricing, covenants, and task workflows
- Implemented intelligent bank reconciliation reducing manual effort by **80%** through automated matching algorithms
- Led Salesforce Security Review for enterprise compliance; drove market expansion including Australia entry

Technologies: Salesforce (Apex, LWC, SOQL), Python, JavaScript, PostgreSQL

EDUCATION

MS Computer Science — Georgia Institute of Technology | *Specialization: Artificial Intelligence*

B.Tech Computer Science — APJ Abdul Kalam Technological University | *2012*

TECHNICAL EXPERTISE

AI/ML & Data: OpenAI GPT, BERT, RAG Systems, pgvector, Semantic Search, NLP, Agentic Frameworks, AI Guardrails

Infrastructure: Python, FastAPI, Node.js, TypeScript, AWS (Lambda, DynamoDB, S3, SQS), PostgreSQL, Docker, Kubernetes

Engineering Practices: Agile/Scrum, CI/CD, DevOps, Microservices Architecture, RESTful API Design, Code Reviews

Leadership: Team Building (10+ engineers), Roadmap Planning, Cross-functional Collaboration, Performance Management, Hiring