

Sanchusri Kavitha Babu

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EDUCATION

NEW YORK UNIVERSITY

New York, USA

Master of Science in Computer Science, GPA: 3.90 / 4.00 (first-semester)

Sep 2025 — May 2027

- **Relevant coursework:** Big Data, Data Science, Design Analysis & Algorithms, Java(OOP), Data Visualization, HCI

KING'S COLLEGE LONDON

London, UK

BSc (Hon) in Computer Science (Artificial Intelligence), First-class Honours

Sep 2022 — July 2025

- **Relevant coursework:** Data Structures & Algorithms, Database Systems, AI, Machine Learning, Software Engineering, Operating Systems, Cryptography, ROS, Compilers, C++, Optimization methods

SKILLS

Languages & Databases : Python, Java, C++, TypeScript/JavaScript, HTML, SQL, PostgreSQL, MySQL, MongoDB

Frameworks & Tools: Node.js, Django, Flask, React, Vue.js, D3.js, Hadoop, PySpark, Apache Kafka, Docker, Git

Core: Distributed Systems, Cloud Computing (AWS, Azure), System Design, CI/CD, Security (JWT, RBAC), Agile

EXPERIENCE

KING'S LABS | Software Engineer

London, UK | Nov 2024 – May 2025

- Engineered distributed REST APIs (Express.js) for a dental imaging platform, reducing upload latency by 30% and improving system scalability.
- Implemented JWT-based access control across 15+ endpoints, ensuring secure, zero-downtime deployments.
- Automated CI/CD pipelines on Azure and migrated PostgreSQL services to Cosmos DB, cutting deployment time by 30 minutes per release and improving scalability and fault tolerance.

SMALLCAP.AI | Software Engineering Intern

London, UK | Jun 2024 – Aug 2024

- Led backend development for Play2Earn.ai, building 20+ scalable REST APIs (Node.js, MongoDB) for a crypto-reward platform with 100+ test users.
 - Designed Flask APIs and MySQL schemas for user data management, processing hundreds of records, cutting query time by 25ms while improving backend performance and reliability.
 - Implemented data preprocessing and model-tuning components of an ML pipeline for CV analysis using Pandas, NumPy, and Scikit-learn, increasing classification accuracy by 15% and optimizing runtime efficiency.
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PROJECTS

Chess Opening-to-Endgame Analytics Pipeline

- Implemented a distributed batch-streaming pipeline (Hadoop, Spark, Kafka, MongoDB), processing 500K+ chess games (~80M moves) to model opening -> endgame transitions.
- Architected a Lambda-based system combining offline batch analytics with Spark Structured Streaming for real-time inference, achieving <2s end-to-end micro-batch latency under continuous ingestion.
- Trained a CNN on FEN-encoded board states to predict 11 endgame classes, achieving ~43% test accuracy.

MindSafe — AI Media Safety Platform (HackNYU)

- Built an AI-powered media analysis platform in 24 hours using 8 developmental metrics to generate age-specific Development Scores and Brainrot Indexes for children's video safety.
- Formulated and operationalized a multi-metric scoring algorithm using LLM-based transcription and semantic analysis, powering a web app and Chrome extension.

Strype — Gamification Feature Extension (Dissertation)

- Developed end-to-end gamification features for strype.org using Vue.js and TypeScript, designing 20+ badges and rule-based point progression driven by code and usage metrics.
 - Built and evaluated a progress-tracking dashboard for 100+ users, conducting usability testing with 20+ students and authoring a 25,000-word dissertation.
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COMPETITIONS & ACHIEVEMENTS

HACKLYTICS — 2nd Place, Fintech Track

Databricks · UN · Actian | Feb 2026

- Engineered BLINDSPOT, an AI capital allocation engine for humanitarian crises — XGBoost severity scoring across 5 UN datasets, SciPy optimizer, Gemini 2.5 Flash assistant, and a RAG layer embedding 2,388 UN documents.

HACK THE BURGHE — Runner-Up (QRT Challenge)

Optiver · QRT · G-Research | Mar 2025

- Placed Runner-Up among 10+ teams, collaborating in a 6-member team to deliver an AI-powered crypto trading assistant with real-time dashboards and Twilio voice alerts using OpenAI, CoinGecko, and FastAPI APIs in 24 hrs.

GLOBAL POWER HACKATHON — Winner

Microsoft · EY · Pareto Economics | Nov 2022

- Developed a 5G-readiness index dashboard integrating economic metrics with interactive data visualization, collaborating with a 6-member team in a 48-hour hackathon, outperforming 6-7 competing teams.
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LEADERSHIP

President, KCL Artificial Intelligence Society - Organized 15+ technical workshops and tech talks for 200+ attendees, mentored junior members, and earned the KCLSU Silver Crown Award for outstanding leadership.