Kailash Shankar

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Education

University of Florida Gainesville, FL – **GPA: 4.00**
Bachelor of Science in Computer Science, Minor in Linguistics *May 2027*
Relevant Coursework: Data Structures and Algorithms, Software Engineering, UX Design, Operating Systems, Discrete Structures, Computer Organization, Computational Linear Algebra, The Structure of Human Language

Technical Skills

Languages: Python, C/C++, JavaScript, HTML/CSS, MATLAB
Frameworks/Libraries: React, Node.js, Next.js, Leaflet, NeonDB, MongoDB, Supabase, Tailwind
Tools/Platforms: Prisma, Inngest, PostgreSQL, Linux, Git, Docker

Experience

Software Engineering Intern May 2025 – June 2025
EDU Africa *Cape Town, South Africa*
- Built interactive **React + Leaflet map and REST API**, visualizing housing issue reporting and allowing direct access to local support resources, **connecting 30+ informal settlements** across the Western Cape
- Translated client feedback into **agile sprints**, enforced code quality via **PR reviews** and unit testing, and handed off a **well-documented solution exceeding stakeholder expectations**
- Delivered intuitive, responsive UI optimized for low-bandwidth devices, **serving 100+ monthly active users**

Undergraduate Research Assistant August 2025 – Present
UF Computational Linguistics Lab *Gainesville, FL*
- Investigated **LLM generalizability** via cross-lingual partitioning of morphologically segmented data across diverse language families to enhance zero-shot performance on low-resource languages
- Benchmarked **OLMo-2 (1B)** across 2,000 languages on **UF HiPerGator**, analyzing the impact of massive multilingual scale on cross-linguistic transfer and model generalization
- Quantified **model robustness** by systematically injecting artificial annotation errors into training sets to empirically model the trade-off between data scale and annotation noise

Machine Learning Engineer September 2025 – Present
UF GatorAI Club *Gainesville, FL*
- Developed a Next.js/FastAPI AI Teaching Assistant serving 50+ students with **95% response accuracy** via course-specific chatbot instances
- Engineered **Gemini 2.0** orchestration with custom guardrails, **reducing hallucination rates by 30%** while enforcing academic integrity
- Optimized **RAG** performance using ChromaDB and semantic search, achieving **sub-500ms retrieval latency** across **1,000+** localized academic documents

Projects

Lingua | *React, Tailwind CSS, Next, Supabase, Gemini-3-flash* Jan 2025 – Present
- Architected AI language learning platform, implementing **real-time feedback** system processing AI conversation history via **RESTful API** to generate multi-dimensional performance metrics for students and teachers
- Optimized database performance and costs reducing unnecessary LLM API calls through **persistent state management** and **JSONB structured storage** in PostgreSQL
- Implemented **Role-Based Access Control (RBAC)** using Supabase Auth and **Row Level Security (RLS)** to distinguish between student/teacher personas, ensuring **secure data isolation** and specialized user dashboards

AI Career Coach | *React, Next, Tailwind CSS, NeonDB, Prisma, Inngest* November 2025 – December 2025
- Developed AI resume optimizer using **Gemini-3-flash** for structured, ATS-compliant content generation
- Engineered mock interview system with **Prisma/NeonDB** to persist and analyze performance metrics
- Orchestrated **Inngest** workflows to automate weekly updates of industry skill and salary trends

Average Home Price Estimator | *React, Next, C++, httplib* October 2025 – November 2025
- Built full-stack web app delivering neighborhood insights and housing price estimates with **98% accuracy**
- Implemented **Red-Black Tree** and **B-Tree** structures to store and query **100k+** records in **O(log n)** time
- Connected a C++ backend to a responsive React frontend using **Next.js** and **httplib** for fast API communication