

# Kishan Rajeev Jagadeesh

Computer Science, B.S. (Robotics)

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CS student with strong experience in Linux, Android and networking. Built an offline Android app running on-device ML inference. Currently writing a knowledge-base search engine in pure C with an inverted index and TF-IDF ranking from scratch.

## Education

**Bachelor of Science in Computer Science, Robotics Concentration**, North Carolina State University ✖ 08/2026 – 05/2029  
Raleigh, NC  
• GPA: 3.93 (transfer)  
**Coursework:**  
• Data Structures and Algorithms (ITSC 2214)  
• Discrete Math (CSC 226)  
• Fundamentals of Applied AI (CSC 201 - PyTorch, MATLAB, NumPy, Matplotlib)  
• Software Development Fundamentals (CSC 216, Object Oriented Programming)

## Relevant Experience

**Software Engineering Intern - North Carolina Department of Health and Human Services** ✖ 06/2026 – 08/2026  
Raleigh, NC  
• Presented live demonstrations of the AI chatbot platform to organizational stakeholders  
• Created onboarding documentation enabling NCDHHS staff to maintain and extend the platform  
• Conducted workshops training NCDHHS employees on AI tool adoption and AI pipelines  
• Worked within an Agile Scrum team using Jira, delivering features across five 2-week sprints  
  
**Ready, Set, App! - Intern & Lead Intern**, North Carolina Business Committee for Education ✖ 11/2022 – 05/2025  
Raleigh, NC  
• Led weekly team meetings to manage project timelines and assist fellow interns  
• Created resource guides and videos to support teams competing in the event  
• Contributed to the budgeting and planning for the final event  
  
**Founder and Full Stack Developer**, JeevSol ✖ 05/2022 – Present  
Apex, NC  
• Developed client mobile apps/websites using Flutter and WordPress  
• Mentored groups of 15+ middle, high school and college students in Python and software fundamentals

## Projects

**Child Support Services AI Chatbot** ✖, North Carolina Department of Health and Human Services 06/2026 – 08/2026  
• Engineered a dual platform chatbot system: a user-facing AI agent for the Child Support Services Parents portal (Copilot Studio) and an internal employee agent (Spring Boot/Spring AI)  
• Developed and tested RESTful APIs using Spring Boot and JUnit, building a RAG pipeline that integrated across 3+ knowledge bases  
• Managed PostgreSQL for persistent storage of conversation context and pgvector embeddings  
• Implemented local embedding and generative models to maintain full compliance with sensitive government data requirements  
  
**Where** ✖ 06/2026 – Present  
• Designing an indexing pipeline using TF-IDF and an Inverted Index to map system knowledge bases for query based information retrieval  
• Implementing all logic in pure C (C99/C11) and managing state using an Arena Allocator for predictable memory usage and targeting low-latency retrieval  
• Includes a configurable tokenizer that expands patterns (e.g., file paths, IPs, custom keys) which allows for accurate search without the need of embedding models  
  
**Eyencode** ✖ 06/2026 – Present  
• Built an offline Android image semantic search engine that finds photos and screenshots by text description or visual similarity, fully on-device/embedded  
• Achieved ~6.5 images/sec local indexing and ~7ms semantic inference using ONNX Runtime  
• Designed a "bring your own model" architecture allowing users to import different embedding models  
  
**PicSolve** ✖ 03/2023 – Present  
• **1,000+ downloads worldwide.** ML-powered image search app that extracts text from photos and retrieves relevant information via AI search  
• Implemented OCR pipeline using ML Kit with processing to handle variable image quality + autofocus  
  
**HomeLab** ✖ 09/2025 – Present  
• Configured a WireGuard mesh with egress nodes in multiple regions for traffic routing  
• Deployed isolated Linux environments and orchestrated containerized services with Docker Compose across a Proxmox host running LXC containers  
• Built a WireGuard tunnel and Nginx/Caddy reverse proxy on an Oracle VPS for split-horizon DNS

Certificates

Skills

**Python Institute - PCAP-31-03**  
**Pearson - Python IT Specialist**  
**Presidential Volunteer Service Awards** – Silver (2020) and Gold (2021)

**Languages** – C (C99/C11), Python, Java, SQL, HTML  
**Tools** – Git, REST, PostgreSQL, JUnit, Docker, Proxmox, Nginx, Caddy, Jira  
**Systems & Platforms** – Linux, Android, Containerization, Cloud Infrastructure  
**AI/ML** – Spring AI, llama.cpp, Ollama, ONNX Runtime, TF-IDF