

NAVEEN NARASIMHAPPA

AI Software Engineer | RAG, AI Agents & Generative AI

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PROFILE

AI software engineer who builds production RAG systems, AI agents, and generative-AI applications end to end. I design and ship LLM-powered features in Python and Fast API, from data ingestion and retrieval to containerized deployment, with a strong focus on reliability and evaluation. Award-winning hackathon builder (Schaeffler Challenge winner) with an engineering foundation and an M.Sc. in AI & Data-Driven Systems (FAU Erlangen-Nürnberg).

CORE SKILLS

AI & LLM Systems: End-to-end RAG pipelines, AI agents & agentic workflows, prompt engineering, FAISS, evaluation (correctness, hallucination), LangChain (LCEL)

Backend & APIs: Python, FastAPI, REST API design, debugging, testing, version control (Git/GitLab)

Cloud & MLOps: Docker, GitLab CI/CD, GKE / GCP, Linux, reproducible deployment

ML & Data: PyTorch, NumPy, Pandas, data preprocessing, PCA, RANSAC

Languages: English (C1), German (B1.1)

PROFESSIONAL EXPERIENCE

AI Web Developer (Working Student)

Parasia Restaurant

03/2026 – Present

Forchheim, Germany

Stack: Python, FastAPI, LLMs, RAG, React, Docker

- Build AI-powered web applications and customer-facing tools, integrating LLM-based features into live web services.
- Design and develop backend APIs in Python and FastAPI for conversational and automation features across the customer experience.
- Implement RAG and context-aware LLM workflows for menu queries, reservations, and support, and own end-to-end delivery through Dockerized production rollout.

AI & Automation Engineer (Intern)

Rooh Gastronomy

11/2025 – 03/2026

Hersbruck, Germany

Stack: Python, FastAPI, LLMs, RAG, Twilio, Docker

- Designed and implemented AI-driven process automation to optimize restaurant operations and customer interaction workflows.
- Engineered a **real-time AI voice assistant** using FastAPI and Twilio to autonomously handle customer calls, reservations, and menu queries.
- Integrated context-aware conversational workflows ensuring reliable multi-turn dialogue and domain-restricted responses.

Research Associate

Autotron Group / TU Munich

09/2024 – 08/2025

Garching, Germany

Stack: Python, Open3D, NumPy, PCA, RANSAC, Blender

- Designed and deployed an AI-powered 3D geometric analysis system (PCA, RANSAC), automating symmetry detection and improving processing speed by ~50%.
- Architected scalable data-preprocessing and feature-extraction pipelines for large-scale 3D point-cloud datasets, achieving ~2× faster computation.
- Built and validated research-grade AI prototypes for industrial automation and simulation, translating complex geometric data into engineering insight.

Data Analyst (Intern)

Titan Eyewear — Titan Company Ltd.

03/2021 – 05/2022

Bangalore, India

Stack: Python, Pandas, Excel, Statistical Analysis

- Analyzed endurance and sensor datasets for 200+ SKU variants, identifying failure trends and quality risks.

- Built Python- and Excel-based statistical models to optimize inventory and production planning, reducing process delays by ~15%.
- Collaborated with engineering teams on data-driven dashboards, improving reporting efficiency and decision speed.

Chief Administrative Officer (promoted from Crisis Manager)

01/2020 – 08/2021

Jeevan Hospitals

Bangalore, India

Stack: IT Operations, Billing Software, Vendor Management

- Promoted to Chief Administrative Officer for strong leadership and operational performance, managing a team of 30+ staff.
- Managed hospital IT infrastructure, billing software, and daily IT operations, improving data accuracy and system uptime by ~20%.
- Negotiated and managed vendor contracts for IT systems and services, optimizing procurement costs and ensuring continuity.

SELECTED PROJECTS

AI Developer Buddy — DATEV HackBay 2025 • [GitHub](#)

Generative-AI + RAG system (OpenAI + FAISS) that evaluates source code for compliance with corporate guidelines, with PDF chunking, retrieval pipelines, and agent-like evaluation producing real-time scoring, feedback badges, and recommendations.

SynthWave AI — Generative AI Music Composer • [GitHub](#)

End-to-end platform converting natural-language prompts into original multi-instrument music with AI lyrics and voice synthesis. Dual LangChain LCEL pipeline plus a NumPy DSP synthesis engine; deployed via GitLab CI/CD to GKE (GCP).

AI Voice Assistant for Restaurant Reservations — Rooh • [GitHub](#)

Real-time voice assistant (FastAPI + Twilio) that autonomously handles calls, reservations, and menu queries through reliable multi-turn, tool-using dialogue.

Multi-Agent InboxAI — AI-Powered Email Response Automation • [GitHub](#)

Agentic system that reads, classifies, and drafts email responses using coordinated multi-agent workflows and LLM tool use.

PDF Query — Streamlit Application (Hugging Face Hub) • [GitHub](#)

Retrieval-augmented app that answers natural-language questions over uploaded PDFs using embeddings and semantic search.

Master's Thesis — Automating a 6-DoF Measurement Workflow • [Gitlab](#)

Semi-automated Blender add-on (SIMPOD framework) using RANSAC for surface-feature extraction and DBSCAN + Ball Pivoting for 3D reconstruction across industrial parts, replacing an error-prone manual workflow.

HACKATHONS & AWARDS

WINNER — Hackbay 2024, Schaeffler Challenge

05/2024

1st place at ZOLLHOF Tech Incubator, Nuremberg — built the winning AI solution among competing teams for Schaeffler.

Finalist — One Night to Innovate Hackathon

École nationale des ponts et chaussées, Paris • 12/2024

Participant — Human-Inspired Computer Vision Challenge

EELISA, Budapest • 02/2025

Participant — Smart City Metaverse Sustainability Challenge

EELISA, Erlangen • 04/2023

EDUCATION, CERTIFICATIONS & LANGUAGES

M.Sc. Electromobility — AI & Data-Driven Systems

10/2022 – 03/2026

Friedrich-Alexander-Universität Erlangen-Nürnberg • Grade 2.1

Erlangen, Germany

B.E. Mechanical Engineering

08/2018 – 07/2022

Visvesvaraya Technological University (VTU)

Belagavi, India

Certifications: AWS Certified Cloud Practitioner • Retrieval-Augmented Generation (DeepLearning.AI) • Certified Scrum Master • Python for Data Science, AI & Development (Coursera)

Languages: English (C1) • German (B1.1)