

NIRMAL KHEDKAR

Software Engineer and Cloud Enthusiast

in @nirmalhk7  @nirmalhk7  <https://nirmalhk7.com>

 nirmalhk7@gmail.com

EDUCATION

National Institute of Technology Karnataka

July 2018 - May 2022

Bachelor of Technology - Information Technology

Undergraduate

ACADEMIC ACHIEVEMENTS

Vehicle Re-identification Using Convolutional Neural Network

Jan 2023

Research Paper - ICADCML 2023

- The paper describes the usage of convolutional neural networks with vision-based techniques to accurately identify vehicles across multiple cameras without being dependent on their number plates.

NIT Conclave 2019

Hackathon

2nd Position for College

- I participated in the hackathon team, developing a full-stack social network platform tailored to connect researchers and facilitate collaboration.

PROFESSIONAL EXPERIENCE

Visa Inc.

June 2022 - Present

Software Engineer

- Successfully migrated Springboot services to asynchronous Reactor architecture for performance improvements. Also handled all security, test, infra and deployment issues for the release of these components in internal test environments and production.

- Proficient in handling unpredictable client and production errors.

- Introduced test coverage practices and end-to-end Jenkins pipelines, thus improving engineering practices at my team and reducing development time.

Visa Inc.

May 2021 - July 2021

Internship

- Analyzed several data points within the Visa Developer Platform ecosystem to gather data on route, API, product and client levels.

- Merged the above data into a single portal and developed a frontend panel to query said data. Also provided an API access to query generated data using GraphQL.

Twizzr.com (Startup)

Oct 2019 - May 2022

Tech Lead, Part-time

- Brainstormed business requirements, design plans and translated and refactored code for scalability and future compatibility.

- Implemented linters, automated version bumps and CI-CD pipelines for enhanced development experience and code quality. Additionally, I introduced customer engagement tools like chatbots and analytics for proactive error resolution and insights into customer experience.

RELEVANT COURSES AND CERTIFICATION

GCP Big Data and ML Fundamentals by Google Cloud, Coursera

Engineering Data in Google Qwiklabs

TECHNICAL STRENGTHS

Languages	Java, Javascript, MySQL, MongoDB, C/C++, Python, GraphQL
Frameworks	Springboot, Mockito, Project Reactor, MEAN/ MERN, Android, Typescript, React Native, Gatsby, Rails, NextJS, NestJS, R2DBC, WebVR
Tools	Google Cloud, Jenkins CI, Kubernetes, Prometheus, Sentry, Linux, Generative AI

PROJECTS

AR Visualization of Human Anatomy	WebVR, Javascript
Created a human anatomy learning system using augmented reality technology and human-computer interaction principles. We also evaluate the application's usefulness by testing it with an audience to understand its effectiveness for learning and understanding.	
Driver Attentiveness Detection	Computer Vision, Python
Developed a safety tool to prevent road accidents by detecting driver drowsiness from dash-cam videos. We do this by analyzing the driver's facial expressions and body position from each video frame.	
Farm-fresh E-Commerce Portal	MERN, Javascript
Built a full-stack website for farmers to sell produce directly to consumers, without mediators, thus increasing farmers' income and reducing the market prices.	
Reference based Image Colorization	Computer Vision, Colorization
Studied and built a model that can efficiently colorize an entire sketch without continuous user intervention.	
Automatic Generation of Topic Labels	Information Retrieval, Python
Describe a system that uses different encoder-decoder models with various network layers to create an algorithm that produces topic labels.	

VOLUNTEERING ROLES

Integrated Resources and Information Technology (IRIS), NITK	July 2019 - May 2022
<i>Frontend Advisor and Web Developer</i>	<i>NITK Surathkal</i>
<ul style="list-style-type: none">- I worked for IRIS in its Web Development Team, contributing to design upgrades, feature enhancements and supporting production fixes.- Contributed towards improving Admission Modules and major design improvements for CEMS, CDC, and Profile Module.	
The Institute of Engineering & Technology, NITK	May 2020 - May 2022
<i>Webmaster</i>	<i>NITK Surathkal</i>
<ul style="list-style-type: none">- Redesigned IET NITK website from scratch to detail activities done by the group.- Integrated this website to a content management system, simplifying web content maintenance.- Streamlined several manual, unorganized processes onto the website, increasing group participation.	
TEDxNITKSurathkal	June 2019 - Jan 2020
<i>Web Developer</i>	<i>NITK Surathkal</i>
I was tasked to build the theme reveal using WebVR technologies and frameworks like A-Frame.	