



Praveen Kumar

Python Enthusiast | Back-End Engineer | Transitioning to Python Stack

Senior Project Lead with 14+ years of experience building scalable back-end solutions in PHP and Node.js, now pivoting into Python development. Recently completed multiple certifications in Django, Flask, FastAPI, and Machine Learning. Demonstrated Python expertise through self-initiated projects and strong understanding of REST APIs, DevOps, and cloud deployment. Proven leader with experience mentoring teams and driving Agile delivery.

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SKILLS

Programming Languages: PHP, Node.js, Python, JavaScript, TypeScript

Frameworks & Libraries: Laravel, Express.js, Django, Flask, FastAPI, Bootstrap, jQuery

AI & Machine Learning: Python ML Libraries, Prompt Engineering, Generative AI, OpenAI APIs

Cloud & DevOps: AWS (EC2, S3, EFS), Render, Heroku, DigitalOcean, GitHub Actions, Docker, Kubernetes, Terraform

API & Integration: REST, GraphQL, Django REST Framework, FastAPI, Payment Gateways (PayPal, Stripe, RazorPay, etc.)

Database Management: MySQL, MongoDB, Redis, DB2

Tools & Platforms: GIT, SVN, VSCode, Jupyter Notebook, FileZilla, WinSCP, Google Colab

Soft Skills: Team Leadership, Agile Methodologies, Technical Mentorship, Effective Communication

WORK EXPERIENCE

Senior Project Lead Matrimony.com Limited

08/2019 - 09/2024

Chennai, India

Key Contributions

- Managed the Login and Photo Modules for flagship products including Bharat Matrimony, Community Matrimony, and Global Matrimony, serving millions of users.
- Led a team of 6 developers, improving team productivity by mentoring on technical functionalities and product fundamentals.
- Optimized application performance, reducing module loading time by 30% through efficient API design and database tuning.
- Implemented agile methodologies, enhancing sprint delivery accuracy by 25%.
- Collaborated with cross-functional teams to design and deploy a robust change management system, ensuring seamless module updates.
- **Technologies Used:** PHP, Node.js, TypeScript, GraphQL, PrismaORM, HTML5, CSS3, JavaScript, jQuery, AJAX
- **Version Control:** GIT, SVN

Senior Web Developer Innoblitz Technologies and Systems Private Limited

07/2018 - 08/2019

Chennai, India

Key Contributions

- Enhanced core application features, ensuring compliance with industry standards and best practices.
- Analyzed client requirements and implemented scalable back-end solutions, achieving a 20% improvement in feature delivery timelines.
- Designed and optimized databases, reducing query execution time by 40%.
- Delivered high-quality user interfaces with responsiveness, improving customer satisfaction.
- **Technologies Used:** PHP, Laravel, HTML5, CSS3, JavaScript, jQuery, AJAX
- **Version Control:** GIT

WORK EXPERIENCE

Lead Web Developer

Times Partner Services Private Limited

06/2015 - 07/2018

Chennai, India

Key Contributions

- Spearheaded development projects, delivering on-time solutions while meeting quality benchmarks.
- Collaborated with stakeholders in Scrum meetings, identifying process inefficiencies and implementing improvements that reduced development time by 15%.
- Optimized system performance, ensuring 99.9% uptime across deployed modules.
- **Technologies Used:** PHP, HTML, CSS, JavaScript, jQuery, AJAX
- **Version Control:** GIT

Web Developer

Dot Infotech

08/2012 - 05/2015

Chennai, India

Key Contributions

- Led the end-to-end development of client applications, from planning and design to testing and deployment.
- Reduced defect rates by 20% by introducing better testing protocols and code reviews.
- Designed scalable front-end interfaces and optimized MySQL queries to enhance performance.
- **Technologies Used:** PHP, MySQL, Bootstrap3, HTML, CSS, JavaScript, jQuery
- **Version Control:** GIT

Web Developer

Cubro Soft

12/2009 - 08/2012

Chennai, India

Key Contributions

- Developed and maintained application functionalities for client projects, meeting 90% of project deadlines.
- Collaborated with clients to gather requirements, enhancing user satisfaction through tailored solutions.
- Created optimized modules using Smarty Template Engine and MySQL.
- **Technologies Used:** PHP, MySQL, Smarty Template Engine, HTML, CSS, JavaScript, AJAX
- **Tools Used:** FileZilla, WinSCP

CERTIFICATES

Generative AI Foundations Certificate Program (by upGrad in collaboration with Microsoft)

(04/2025 - 04/2025)

<https://certificates.knowledgehut.com/bdb4b0b4-55da-4435-9408-61357b15d044-Gen-AI-UG-12345-20250426003.jpeg>

Practical Machine Learning Using Python

(10/2024 - 10/2024)

<https://www.tutorialspoint.com/market/certificate.jsp/TP-EJTDGKCQ?v=1729756692>

Python Web Dev Pro: Flask, Django, HTML, CSS & Bootstrap (03/2025 - 03/2025)

<https://www.tutorialspoint.com/market/certificate.jsp/TP-DC4NQ941?v=1742449060>

The Complete Python Bootcamp From Zero to Hero in Python (12/2024 - 01/2025)

<https://www.udemy.com/certificate/UC-1993460d-f971-4964-b2ec-6dc29fb17baf/>

DevOps Beginners to Advanced with Projects

(04/2025 - 05/2025)

<https://www.udemy.com/certificate/UC-54f1661a-46a9-4ad3-b815-0d0fbf095ce5/>

ChatGPT Masterclass: Navigating AI and Prompt Engineering (10/2024 - 10/2024)

<https://www.tutorialspoint.com/market/certificate.jsp/TP-A2OC621E?v=1728481036>

Machine Learning, Data Science and Generative AI with Python (04/2025 - 04/2025)

<https://www.udemy.com/certificate/UC-488a9cd3-8d14-46d2-802c-818ff134e5f2/>

Artificial Intelligence and Machine Learning Projects

(05/2025 - 05/2025)

<https://www.mygreatlearning.com/certificate/KPXBWHFN>

Learn API Development with FastAPI + MySQL in Python (03/2025 - 03/2025)

<https://www.tutorialspoint.com/market/certificate.jsp/TP-69U2JECU?v=1742455390>

Building an A.I ChatBot with OpenAI and Node.js (10/2024 - 10/2024)

<https://www.tutorialspoint.com/market/certificate.jsp/TP-GL7RCHIN?v=1728289331>

GitHub Actions - The Complete Guide

(01/2025 - 01/2025)

<https://www.udemy.com/certificate/UC-304f2d18-24d3-451a-8eff-d4612a2ce1f2/>

NodeJS - The Complete Guide (MVC, REST APIs, GraphQL, Deno) (10/2024 - 11/2024)

<https://www.udemy.com/certificate/UC-6c343468-8f67-413d-ab64-d4438b0ae4fd/>

CERTIFICATES

Laravel - For Beginner to Advanced (11/2024 - 11/2024)

<https://www.udemy.com/certificate/UC-e05a7b0e-2d07-43b3-ac43-a962dd10a33e/>

Agile Project Management (AgilePM) Certification
Masterclass (03/2025 - 03/2025)

<https://www.udemy.com/certificate/UC-91721051-c457-41ee-89d3-15bd2883b534/>

EDUCATION

**Master of Science in Information
Technology**

University of Madras

2009 - 2011

Bachelor of Computer Applications

Dwaraka Doss Goverdhan Doss Vaishnav
College

2005 - 2008

PROJECTS

ML Project: Student Exam Score Predictor (06/2025 - 06/2025)

- **Description:** Built as a self-project to predict students' final exam scores based on study hours, past scores, and attendance. Demonstrated complete ML workflow including EDA, model building, and real-time predictions.
- **Tech Stack:** Python, Pandas, Matplotlib, Seaborn, Scikit-learn, Google Colab
- **Key Features:** • Clean synthetic dataset created for prediction demo • Visualized data relationships using scatter plots and correlation heatmap • Trained Linear Regression model with 94% R² Score • Performed real-time predictions using new input values • Evaluated model using MAE, RMSE, and R² metrics
- **Project URL:** <https://colab.research.google.com/drive/1a6HtPd67PKMBwSGlITVa7pdWbxAAxOrU?usp=sharing>

ML Project: Customer Segmentation – K-Means Clustering (06/2025 - 06/2025)

- **Description:** Implemented an unsupervised learning model to segment customers based on spending behavior using the K-Means clustering algorithm. Used exploratory data analysis and the elbow method to determine optimal clusters.
- **Tech Stack:** Python, Google Colab, Pandas, Matplotlib, Seaborn, Scikit-learn
- **Key Features:** EDA on customer demographics (Age, Income, Spending Score) Visualized distributions and relationships Used Elbow Method to determine optimal clusters (K=3) Applied K-Means clustering and plotted customer segments Identified distinct behavioral patterns among customer groups
- **Project URL:** <https://colab.research.google.com/drive/1Wq03YcimcqDIUOUdO6DKGWjzJwXyaW28?usp=sharing>

ML Project: Loan Approval Classifier – Logistic Regression (06/2025 - 06/2025)

- **Description:** Built a binary classification model to predict loan approvals using a structured dataset containing applicant details such as income, education, credit history, and loan amount. The goal was to automate the initial screening of loan applications.
- **Tech Stack:** Python, Pandas, Scikit-learn, Matplotlib, Seaborn, Google Colab
- **Key Features:** Cleaned and preprocessed data with label encoding for categorical features Trained a Logistic Regression model with ~94% accuracy Visualized performance using confusion matrix and comparison charts Identified class imbalance and handled undefined precision using proper metrics handling Model suitable for basic real-world automation in financial pre-approval systems
- **Project URL:** <https://colab.research.google.com/drive/1byEOaVw-z1PZUqnKo5bhoMTgLMK-DiGM?usp=sharing>

Django Project: Task Management System (03/2025 - 03/2025)

- **Description:** Developed as a self-project, a simple web app for managing tasks with user authentication. Users can create, update, and delete tasks.
- **Tech Stack:** Django, MySQL, Bootstrap
- **Key Features:** User registration & login (Django Authentication), CRUD operations for tasks (Create, Read, Update, Delete), Task filtering (e.g., Completed/Pending tasks), REST API using Django REST Framework
- **Project URL:** https://github.com/praveenkhumar/task_management_system

Flask Project: URL Shortener (03/2025 - 03/2025)

- **Description:** Developed as a self-project, a web app that takes long URLs and generates short links similar to bit.ly.
- **Tech Stack:** Flask, MySQL, Bootstrap
- **Key Features:** Form input for long URLs, Generating unique short URLs, Redirecting short URLs to the original URL, API to shorten URLs and retrieve original links
- **Project URL:** <https://github.com/praveenkhumar/url-shortener>

FastAPI Project: Weather API (03/2025 - 03/2025)

- **Description:** Developed as a self-project, a REST API that fetches and returns weather data for a given city using a third-party weather API.
- **Tech Stack:** FastAPI, OpenWeather API
- **Key Features:** Fetch weather data using an external API, Validate user input with Pydantic, Provide a simple, fast REST API, Swagger UI documentation auto-generated by FastAPI
- **Project URL:** <https://github.com/praveenkhumar/fastapi-weather-project>

Laravel Project: Insurance Management System (08/2018 - 03/2019)

- Developed the back-end interface for managing insurance policies, customer data, and generating detailed reports.
- Implemented scalable APIs and optimized database operations, improving performance by 35%.
- **Key Features:** Policy addition and updates, report generation and downloads, and customer data management.
- **Tech Stack:** Laravel 5, DB2

PROJECTS

Laravel Project: Hospital Maintenance System (06/2019 - 08/2019)

- Designed and implemented a back-end system to manage staff schedules and task assignments efficiently.
- Automated reporting processes, reducing manual effort by 40%.
- Developed modules for assigning tasks based on schedules and generating maintenance reports.
- **Tech Stack:** Laravel 5, MySQL

PHP Project: Web Hosting Search Tool (Hostabay) (04/2018 - 06/2018)

- Developed as a self-project , this platform helps identify hosting companies, traffic, revenue, and tech stack of websites.
- Designed and implemented features to enhance user experience with intuitive design and real-time data retrieval functionality.
- **Tech Stack:** PHP, MySQL
- **Project URL:** <https://www.hostabay.com>

LANGUAGES

English

Full Professional Proficiency

Tamil

Full Professional Proficiency