

PRADHYUMNA PRAKASH

789-287-9360 • pradhyumna.id@gmail.com • linkedin.com/in/pradhyumnaprakash/ •
github.com/PradhyumnaPrakash

SUMMARY

Award-winning machine learning researcher and computer science engineer. Conducted Convolutional Neural Network, RAG System and Unsupervised Learning Model Research. Deploying AI enhanced apps and agents. CBSE National chess player and Regional winner. Carnatic music singer with over a decade of experience.

EDUCATION

Public High School

Delhi Public School, Bengaluru East, Karnataka, India

Graduating June 2026

4.0 GPA

SAT Score: 1550 (760 - English, 790 - Math)

Relevant coursework: AP Computer Science A - 5/5, AP Calculus BC - 5/5, SAFL (Sanskrit As A Foreign Language)

TECHNICAL SKILLS

Research: Machine Learning, Data Analysis, Ophthalmology, LLMs, RAG Systems and Computer Vision Models

Leadership: Mentorship, Leadership, Resilience, Decision-Making, Multi-Tasking

Programming: Python, Java, Javascript, HTML, CSS

Certifications: IBM Data Science Professional Certificate Completion, Stanford Online DeepLearning.AI Machine Learning Specialization Completion, PCEP Certified Entry-Level Python Programmer. 1M1B International Tech Olympiad Bronze Medalist

PROFESSIONAL EXPERIENCE

Adiyen Technologies Private Limited, Bengaluru, Karnataka: Development Intern

- Helped build a real-time, browser-based multiplayer application with a primary goal of enabling synchronous gameplay between users across devices, using the NGX-Chess-Board (MIT licensed).
- Helped develop the user interface using Angular, and integrating the chess logic
- Built session management and backend logic using Node.js
- Implemented WebSocket-based communication for real-time game synchronization

Moniger, Lagos, Nigeria: Data Science, AI/ML and Backend Engineer

- Developed an AI-Powered Expense Categorization Engine that will combine machine learning, natural language processing and user-facing customization tools to automatically classify expenses while allowing users to tailor categories to their personal needs
- This engine serves as a core infrastructure capability powering Moniger's budgeting, insights, and savings features, and enhancing user trust through personalization and transparency.
- Delivered progress updates in biweekly team meetings
- Directly handled, analyzed and prepped 9,000+ transactions

ACADEMIC PROJECTS

Ophthalmology Machine Learning Research

Built and tested unsupervised and supervised Convolutional Neural Network models to classify ocular diseases.

- Used 3 Convolutional Neural Network models to classify 4 and 8 disease classes present within a fundus image respectively. Achieved a maximum accuracy of 90.77% and 55.73% for 4 and 8 classes respectively.
- Developed a K-Means Clustering algorithm that categorized 4 ocular diseases present within a fundus images. Showed that K-Means Clustering can't be used in large, unbalanced datasets
- Research paper under second review in the National High School Journal of Science

Sanskrit based RAG Systems Research

Researched RAG systems with the Sanskrit scriptures Bhagavad Gita and Itihasa

- Researched the effects of Sanskrit based RAG systems in improving faithfulness, relevance and helpfulness to reflective questions

- Evaluated the effects of stronger LLMs in improving RAG systems
- Research paper published in International Journal of Advance Research, Ideas and Innovations in Technology:
<https://www.ijariit.com/manuscript/ancient-indian-scripture-based-retrieval-augmented-systems-a-c>

Swasti AI

Created a therapeutic chatbot app that provides key insights from ancient Sanskrit scriptures.

- Developed an Artificial Intelligence Agent capable of understanding the user's emotions and providing helpful words of wisdom
- Based on 1500 verses of the Bhagavad Gita and the Itihasa
- Deployed worldwide, reached 300+ people from both Indian and US communities
- <https://swasti-ai.vercel.app/>

CollegenceAI

Founder of CollegenceAI - AI powered agent that aids students in the US college application process.

- Provides personalized advice on each individual user's extracurriculars and awards
- Provides specific programs, internships, colleges and scholarships catered to the student's interest and needs
- Connected to user's Google calendar and airtables to store deadlines and new activities
- Contains 100+ colleges, 80+ scholarships, 140+ programs for 5+ countries
- <https://github.com/PradhyumnaPrakash/CollegenceAI>

ACTIVITIES

Chess Player, Chess Club Founder

Playing Chess for a decade. Started my school's first chess club

- Peak rating of 2100+ in Rapid and 2200+ in Bullet on chess.com. 2x CBSE regional winner, best player on board 3 in 2023. 2x CBSE National Qualifier.
- Founder of School Chess Club - first student initiated club.
- Engaged 10+ members in weekly club meetings; Organized 20+ matches and prepped students for tournaments

Published Book Author

Published "Enter Your Prompt: Understanding Large Language Models and RAG Systems

- Wrote 95+ page book on Large Language Models and RAG systems
- Facilitated readers' understanding by providing hands-on guidance with real projects
- Published in Amazon KDP

Elevate21 Member

Elevate21 Member - Published Research

- Member of Elevate21, a 20 week long 21st-century skill building program hosted by One Young India and Flame University
- Engaged in 20+ weeks of Geopolitics, Economics, Business and AI Studies and Debates
- Published white paper on the pros and cons of AI in Cybersecurity
- <https://www.oneyoungindia.com/white-papers/the-future-of-cybersecurity%3A-is-artificial-intelligence-3F/pradhyumna-prakash>

Music

Carnatic Music Singer

- Carnatic music singer for 12+ years
- Participated in 20+ cultural and musical events
- Featured on local newspaper

SAFL - Sanskrit as a Foreign Language

Completed 3 year Sanskrit Philosophy and Indian culture college credit course

- Engaged in 3 years of discussions, debates and pro-active learning about Sanskrit philosophy, scriptures and texts along with Indian culture
- College credit course

Volunteer - Samarthanam Trust for Blind and Disabled

Converted Story, Motivational and Educational books into audiobooks

- Recorded 120+ pages from motivational and educational books into audiobooks for blind students