# Kumar **Piyush**

github.com/vocarista

# Education

## Manipal University Jaipur

Expected July 2026

Bachelor of Technology in Computer Science & Engineering (CGPA: 9.85 / 10)

Jaipur, Rajasthan

• Relevant Coursework: Data Structures and Algorithms (C), Object Oriented Programming (Java), RDBMS (MySQL), **Operating Systems** 

## Skills

Programming Languages: Go, TypeScript, JavaScript, Java, Python, C++, C

Frontend Technologies: React.js, Next.js, HTML, CSS, Tailwind CSS

Backend Technologies: Node.js, Express.js, Spring Boot, MongoDB, MySQL, PostgreSQL, REST APIs Machine Learning: NumPy, Pandas, Jupyter, Tensorflow, Neural Networks, Deep Learning, CNNs, RNNs

**DevOps and Cloud:** AWS, Docker, Kubernetes, Linux, CI/CD

Other Skills: Analysis of Data Structures and Algorithms, System Design, Project Management, Agile Methodologies,

Version Control, Git, Github, Notion APIs

# **Projects**

Journum (Ongoing) | Next.js, TailwindCSS, shadcn/ui, MySQL, AWS RDS, AWS EC2, FastAPI, Docker

- Architected and developed an online journaling application enabling analysis of journal text to assess and score mental well-being across three dimensions using NLP techniques.
- Engineered a mood-graphing feature to visualize historical mental health trends based on hundreds of journal entries over time.
- Led the development of a robust web application using Next.js and learning FastAPI to build the ML inference server.

Shoptown | React.js, TailwindCSS, Bootstrap, RadixUI, Spring Boot, JWT Authentication, Docker

- Constructed and implemented a feature-rich e-commerce website with secure authentication and user data storage capabilities under 3 weeks.
- Rapidly designed and deployed a scalable RESTful API built using Spring Boot within a 1-week timeline.
- Crafted a high-performance, responsive React frontend styled with TailwindCSS, RadixUI, and Bootstrap, ensuring a seamless user experience for three major screen sizes.

**Developer Portfolio** | React.js, Node.js, Express.js, Notion API, TailwindCSS, Framer Motion

- Spearheaded the development of a concise personal portfolio website showcasing projects and achievements under one week.
- Utilized Notion as the database, seamlessly integrating the Notion API to serve data to the client application.
- Designed a visually appealing UI with GPU accelerated smooth animations using TailwindCSS and Framer Motion, also implementied a bimonthly update scheme.

#### Experience

## **Undergraduate Research Fellow**

Dec 2023 - Present

Manipal University Jaipur Jaipur, Rajasthan

- Led CKD prediction modelling efforts and acheived >99% accuracy using hyperparameter tuning.
- Investigated the feasibility of CTGAN for increasing the dataset size upto 1000% to strengthen the prediction model's robustness.

# Certifications

Cloud Computing Specialization | University of Illinois at Urbana-Champaign | Coursera | (Ongoing)

Deep Learning Specialization | Deeplearning.ai | Coursera | (Ongoing)

Agile Project Management | Google | Coursera | April, 2024

Programming, Data Structures and Algorithms using Python | NPTEL | Sep. 2023