

# PAVAN KUMAR V

## Lead Software Engineer

9980239356

pavan3627@gmail.com

linkedin.com/in/pavan-kumar-64a916a6

Bengaluru, Karnataka, India

### PROFESSIONAL SUMMARY

Lead Software Engineer with 9+ years architecting scalable software solutions in broadcasting and enterprise domains. Currently leading a team of 5 engineers at Evertz Microsystems building mission-critical broadcast automation systems serving 50+ television stations.

Expertise in Angular, React, Python, FastAPI, Node.js with proven track record of reducing production incidents by 65% and delivering 70% performance improvements in high-traffic applications.

### TECHNICAL SKILLS

#### Frontend Technologies:

JavaScript, TypeScript, Angular, React, NEXT.js, jQuery, HTML5, CSS3, Bootstrap, Material Design, Redux, NgRx, Redux Toolkit, RxJS

#### Backend Technologies:

Python, FastAPI, Node.js, Express.js, MongoDB, PostgreSQL

#### Tools & Platforms:

Bazel, Webpack, AWS, Vercel, Git, Jasmine, Karma, Jest, Docker

#### Core Competencies:

Microservices Architecture, System Design, State Management, Reactive Programming, Performance Optimization, API Development, Observability, Team Leadership, Code Review, Mentorship

### PROFESSIONAL EXPERIENCE

#### Lead Software Engineer

Evertz Microsystems, Bengaluru | September 2021 - Present

##### Leadership & Team Management

- Lead team of 5 engineers developing broadcast automation systems for 50+ TV stations with 99.9% uptime.
- Reduced production incidents by 65% through testing strategies and monitoring solutions.
- Mentor 3 junior engineers on Angular and RxJS, accelerating ramp-up time by 50%.
- Lead technical design reviews and sprint planning for business-technical alignment.
- Conducted technical interviews and hired 4 engineers who became key team contributors.

##### Technical Architecture & Development

- Engineered real-time playlist orchestration engine enabling seamless content scheduling.
- Designed NgRx state management reducing rendering time by 70% for 50,000+ item playlists.
- Implemented advanced filtering and search functionality enabling users to locate media assets 75% faster.
- Optimized virtual scrolling achieving 60fps for massive datasets through index mapping.
- Developed dynamic playlist management features supporting real-time updates and drag-drop functionality.
- Built RESTful API endpoints with FastAPI for playlist operations handling 5,000+ requests per hour.
- Created reusable Angular components and services adopted across 10+ feature modules.

##### Backend & Performance Optimization

- Architected scalable FastAPI RESTful APIs improving response times by 40% for 10,000+ users.

- Built FastAPI microservices with PostgreSQL reducing database load by 35%.
- Implemented WebSocket communication eliminating polling and reducing network traffic by 40%.
- Enhanced performance with Redis caching reducing API response times by 55%.
- Championed RxJS reactive programming improving maintainability across 8+ modules.
- Optimized Bazel monorepo build achieving 60% faster build times.

## Key Achievements

- Implemented playlist timeline feature with Vis.js improving user productivity by 40%.
- Created FastAPI documentation reducing downstream integration time by 50%.

## Senior Software Engineer

Kore.ai, Hyderabad | May 2018 - August 2021

### Role & Responsibilities

- Led frontend development of enterprise chatbot platform using Angular for conversational AI.
- Architected Bot Store marketplace using React, Redux, Node.js, Express, and MongoDB.
- Designed RESTful APIs with Node.js/Express handling authentication and analytics with JWT.
- Built scalable Express middleware for validation, error handling, and logging.
- Optimized MongoDB queries and aggregations reducing data retrieval times by 45%.
- Implemented Socket.io real-time features enabling live bot training updates.

### Key Achievements

- Successfully launched Bot Store accelerating bot development for organizations.
- Developed UI-Tree interface improving training utterance efficiency by 35%.
- Received accolades for leadership and innovation in project delivery.

## Software Engineer

Luharia Technologies, Hyderabad | September 2016 - April 2018

### Role & Achievements

- Built peer-to-peer lending platform from scratch serving 5,000+ users within first 6 months.
- Developed loan application workflow reducing processing time from 48 hours to 4 hours.
- Implemented responsive web application using Angular achieving 95% mobile compatibility.
- Created RESTful APIs for authentication and loan management handling 10,000+ requests daily.
- Optimized database queries improving page load times by 60%.
- Collaborated with founders translating business requirements into scalable solutions.

## EDUCATION

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### Bachelor of Engineering in Computer Science and Engineering

VVIT (Affiliated to VTU), Bengaluru, Karnataka | 2015