

Punith P

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[Portfolio \(Live\)](#) | [GitHub](#) | [LinkedIn](#)

Summary

Frontend Developer specializing in real-time 3D web applications using Three.js and React. Built and deployed WebGL systems rendering ~18,000 stars with real-time geolocation-based simulation. Focused on performance optimization, scalability, and interactive user experiences.

Education

B.E. in Computer Science & Engineering

K S Institute of Technology, Bengaluru

2023 – 2027

Skills

- **Languages:** JavaScript (ES6+), HTML5, CSS3
- **Frontend:** React, Responsive Design
- **3D & Graphics:** Three.js, WebGL, GLSL, React Three Fiber, Blender
- **Concepts:** Shaders, Procedural Generation, Real-Time Rendering, Performance Optimization
- **Tools:** Git, GitHub, GitHub Pages

Relevant Experience

Real-Time 3D Web Developer (Self-Directed)

2025 – Present

- Developed and deployed a real-time 3D web application rendering ~18,000 stars at interactive frame rates using Three.js and WebGL
- Implemented accurate geolocation-based sun and moon positioning using SunCalc for real-time astronomical simulation
- Designed GLSL shaders for moon phases, atmospheric effects, and sky transitions
- Built procedural volumetric clouds using FBM noise for dynamic sky rendering
- Engineered interactive time control system with smooth real-time updates and responsive UI behavior
- Optimized rendering performance for cross-device compatibility, including mobile

Projects

Low-Poly Time Sync Environment

[Live Demo](#) | [GitHub Repo](#)

- Built and deployed a real-time 3D environment with live astronomical synchronization
- Implemented GPU-based star rendering and procedural sky systems
- Designed responsive UI with interactive time controls and geolocation support

Procedural Low-Poly World Generator (Ongoing)

- Developing a seed-based procedural world generation system using React Three Fiber
- Built Blender-to-web pipeline with optimized GLB assets and texture atlas workflow
- Implemented deterministic object placement for consistent environment generation

Additional Information

- **Achievements:** TCS Tech Bytes statewide engineering IT quiz participant (600+ participants)
- **Certifications:** AI Skills Passport (EY & Microsoft), AWS Cloud Practitioner (Infosys Springboard)
- **Workshops:** ImpactX Hackathon (IEEE), Generative AI Workshop, Blockchain & Cybersecurity Training (IBM SkillsBuild)