

Piyush Jadhav

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EDUCATION

California State University, Chico

MS in Computer Science

Chico, CA

Aug. 2024 – May 2026

Vishwakarma Institute of Technology

Bachelor of Technology, Computer Engineering

Pune, India

Aug. 2016 – May 2020

EXPERIENCE

R&D Software Engineer

Dassault Systèmes

July 2021 – July 2024

Pune, India

- Delivered key projects within the Visualization and Multimedia domain for 3DEXPERIENCE and HomeByMe, proprietary products of Dassault Systèmes
- Developed C++ APIs for OpenAL audio library and added support for .mp4 video codecs using H264 compression library for 3DEXPERIENCE application on Linux platform
- Integrated Skia 2D graphics library for rendering vector graphics & raster images on the screen and used it for generation multimedia output formats like PDF, SVG, JPEG, PNG, TIFF
- Secured major vital clients by debugging and fixing more than 70 critical issues related to Multimedia/Print
- Conducted complex debugging and root cause analysis of multi-threaded image processing pipeline, resolving race conditions and memory corruption issues in production environments
- Resolved critical memory leaks in multimedia/print 2D workflow, leading to a 30% improvement in memory utilization and a significant reduction in system crashes
- Developed a comprehensive understanding of OOP, image processing, image & video compression algorithms, complex software architecture

Software Engineer

Emtec Technologies

Sep. 2020 – June 2021

Pune, India

- Worked on Logistics tracking management system application using TypeScript-React on frontend and .NET Core on backend
- Implemented new functionality by building reusable, efficient React components with apollo client to consume GraphQL queries, mutations
- Successfully refactored the code by writing common component, thus reducing page response time by 90%
- Developed a microservice using C# .NET Web API with GraphQL schemas which interfaces with client-side to implement new functionality

Software Engineering Intern

NVIDIA Corporation

Jan. 2020 – June 2020

Pune, India

- Worked in Compiler domain (Compiler Developer) on a product solution for autonomous vehicle application
- Designed, prototyped, and implemented features in support of new instruction set architecture for existing and future CUDA architectures in form of compiler toolchains with register conventions & ELF parameters
- Used LLVM/NVVM compiler toolchain, created a FW (unit testing) for verifying ABI contents
- Familiarity with compiler optimizations, code generation, semantic analysis and overall design of compilers

TECHNICAL SKILLS

Languages: C++, JavaScript, Python, CUDA-C++, Java, C#

Frameworks/Libraries: React, Node.js, .NET Core, Pytorch

Tools & Database: Git, LLVM, JIRA, Perforce, MySQL, PostgreSQL, MongoDB

Other: Linux OS, Multimedia, Image & Video compression algorithms, Compilers, GPUs, Data Structures & Algorithms

PROJECTS

E-commerce Website | *JavaScript, ReactJS, ExpressJS, MongoDB*

Aug. 2019 – Dec. 2019

- Implemented an e-commerce website using RESTful web APIs using React and NodeJS

Simulation of Operating System | *C++*

Aug. 2018 – Dec. 2018

- UNIX-style OS, implemented using C++ structures, with jobs scheduler having instruction set with error handling

Student's Calendar App | *Java*

Jan. 2019 – May 2019

- Created an android app containing calendar with To-do list feature, developed in Java