

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 Science

Pune, India

Aug. 2016 – May 2020

TECHNICAL SKILLS

Languages: C/C++, JavaScript, TypeScript, HTML, CSS, Python, CUDA-C++, Java, C#

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

Tools & Database: Git, LLVM, GraphQL, MySQL, NoSQL(MongoDB), Elasticsearch, Microsoft Azure, Tableau

Other: Agile, Linux OS, Docker, Image & Video compression algorithms, OOP, Design Patterns, SDLC, GPU

WORK 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

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%**

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
- Familiarity with compiler optimizations, code generation, semantic analysis and overall design of compilers

PROJECTS

GAT for Recommendation System | Python, PyTorch, TensorFlow

2024

- Fine-tuned a pre-trained Graph Attention Network (GAT) to improve user-item recommendations by weighing key interactions
- Re-trained the model on specific domain data with graph-based regularization, boosting top-N recommendation accuracy by 25%
- Used PyTorch Geometric for modeling and TensorFlow for fine-tuning on large-scale datasets

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