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EXPERIENCE

R&D Software Engineer — **Dassault Systèmes, Pune** — **July 2021 – Present**

- 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.
- Implemented FreeType rendering text fonts for optimized visualization on the screen.
- Developed a comprehensive understanding of OOP, image processing, image & video compression algorithms, complex software architecture.

Associate Software Engineer — **Emtec Technologies, Pune** — **September 2020 – June 2021**

- Worked on Logistics tracking management system application using TypeScript-React on frontend and .NET Core on backend.
- Coordinated with architect and translated designs into high-quality code.
- 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 Engineer, Intern — **NVIDIA Corporation, Pune** — **January 2020 – June 2020**

- 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.

EDUCATION

Pune — **Vishwakarma Institute of Technology** — **2016 –2020**

- **B.Tech.** in Computer Engineering with CGPA: 8.59/10
- *Undergraduate Coursework:* Computer Architecture; Operating Systems; Data Structures; Algorithms; Databases; Software Engineering; Artificial Intelligence; Parallel Computing on GPU.

TECHNICAL SKILLS

- **Languages:** C++, JavaScript, CUDA-C++, Java, TypeScript, C#
- **Frameworks/Libraries:** React.js, Redux, Express, .NET Core, Pytorch
- **Tools & Database:** Git, LLVM, JIRA, Perforce, MySQL, PostgreSQL, MongoDB
- **Other:** Multimedia, Image & Video compression algorithms, Compilers, GPUs, Data Structures and Algorithms

PROJECTS

- **Simulation of OS:** UNIX-style OS, implemented using C++ structures, with jobs scheduler having instruction set with error handling.
- **Movie Ticket Booking System:** Created Java GUI for user to book seats for given movie slot. Used file handling to store and display the data.
- **Student's Calendar:** Created an android app containing calendar with To-do list feature, developed in Java.

PUBLICATION

- Register Allocation using Graph Neural Networks ***International Journal of Computer Science*** (ISSN2348-6600)