

Sachin Negi

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WORK EXPERIENCE

ARI SIMULATION

Software Engineer

July '16 – Present

My role is to implement the business logic for the simulators in order to fulfil the specialized needs.

PROJECTS

Platform Software

Editor based software to initialize, create and run simulation under controlled environment for simulators of multiple categories. Optimize the existing system for better performance.

Environment: C++.

Visualization System

Visual engine that is used by different simulators for user interface. Load scene in the world and communicate with server for operations. Create visual effects, VR based simulators.

Environment: C++, DirectX 9, DirectX 11, Nvidia physx, OSG.

Ship Maneuvering Test Simulation Framework

Architecture and implementation of test automation framework for ships

Environment: .NET(C++, C#)

Inverse Kinematics

Implemented the IK (Inverse Kinematics) algorithm to be used for characters in simulators. Integrated the algorithm with existing simulators.

Environment: C++, DirectX, Boost.

VR device: HTC Vive.

M.Tech (Scholarly Paper)

Title: Scheduling a program on CGRA architecture

Guide: Dr.Apala Guha (IIITD)

Platform: C++

The key technique in exploiting a CGRA is to find an optimal mapping of operations over FU's present in CGRA.

Optimizing A* algorithm

Guide: Dr.Apala Guha (IIITD)

Platform: Java

Due to heavy use of multi-core systems and excessive use of A* algorithm in various applications, there's the need to parallelize it to increase throughput and make full use of multi-core systems.

Dual Watermarking for tamper detection and recovery (IIITD)

Platform: Matlab

An effective dual watermark scheme for image tamper detection and recovery is implemented in this project.

Traffic Jaam (app)

Guide: Dr. Vinayak Nayak (IIITD)

Platform: Android

The app user would be able to setup alerts that would notify the user to start preparing to leave for office depending on the traffic conditions on the way.

EDUCATION

M.Tech

Computer Science (2014-16)

IIIT Delhi, CGPA 7.9

B.Tech

Information Technology (2009-13)

AIT (GGSIPU Delhi)

Percentage-76.24

2009-13

AISSCE(XIth) CBSE (2008-09)

Kendriya Vidyalaya, R.K.Puram

Aggregate-87.60%

AISSCE(Xth) CBSE (2006-07)

Kendriya Vidyalaya, R.K.Puram

Aggregate-83.60%

SKILLS

Programming Languages:

C, C++

Basic Knowledge: Java, C#.

Expertise Area:

Data Structures, Algorithms

Tools and Technologies:

DirectX, Visual Studio 10/13/15, Unity, Eclipse, Android. Matlab.

Platforms: Windows

Web: HTML, JavaScript, CSS.

Technical Electives: Media Security, Compilers, Big Data, Network Security, Mobile Computing, Information Retrieval, Program Optimization

Version Control System:

Microsoft TFS, GitHub, BitBucket

Other Achievements

- 99.0 percentile in GATE. Three times GATE qualified.
- Completed online courses on Functional programming and Social and economic networks.
- Attended launch of Delhi Daredevils super-fan as a blogger.
- Always been a rank holder throughout my academics