

Nikhil Vyas

SOFTWARE ENGINEER

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Postgraduate Computer Science student at BITS Pilani with a strong affinity for Development, Design, Algorithms and Problem solving. Actively seeking a Software Engineering position in starting July 2016.

Experience

MathWorks India

Bangalore

GRADUATE TECHNICAL INTERN

January 2016 - Present

- Working with the Simulink Masking team on modularization of the Simulink Mask Editor for a feature planned for MATLAB R2016b.
- Working on the MATLAB codebase(written in C++, Java) to make portions of Simulink Mask Editor pluggable and standalone.
- Maintaining an internal Wiki page for the documentation, status updates and technical details of the project.
- Created internal tutorials for getting started with the codebase and setting up the development environment.
- Providing technical support for a diverse spectrum of projects in MATLAB and Simulink.

BITS Pilani, Goa Campus

Goa

TEACHING ASSISTANT - COMPUTER PROGRAMMING, DATA STRUCTURES AND ALGORITHMS

August 2014 - December 2015

- Prepared learning material, quizzes and assignments for a course with around 600 students across three campuses.
- Assisted in conducting labs and tutorials.
- Helped students with their queries in the subjects outside college hours.

BITS Pilani, Goa Campus

Goa

POSTGRADUATE RESEARCH STUDENT

January 2015 - December 2015

- Studied and worked on development of MAC / Routing Protocols for Mobile Wireless Sensor Networks.

Education

BITS Pilani, Goa Campus

M.E., COMPUTER SCIENCE

CGPA: 7.24 (UPTO SEMESTER 3)

August 2014 - Present

Jodhpur Institute of Engineering and Technology

B.TECH., COMPUTER SCIENCE

AGGREGATE PERCENTAGE: 66.66%

September 2010 - June 2014

Projects

Area Based Opportunistic Routing

C++, OMNET++, CASTALIA

- Developed and implemented an Energy Efficient Routing protocol for mobile wireless sensor networks.
- Did extensive literature survey and simulations for optimization. Implemented an already existing routing protocol for comparison.

Google Cardboard Based Navigation

JAVA, ANDROID

- Developed an Augmented Reality Android application for basic navigation via visual notifications using Google Cardboard API and OpenGL.
- Had no prior experience with Android development; Got familiar with it in a short duration.

University Result Fetcher & Analyzer

PYTHON, BASH

- Developed an application for the college administration for automating the process of retrieving the result from the university website and providing detailed analysis.
- The same task - previously done manually - took at least a day; reduced it to a matter of minutes.

Gunslinger

UNITY, C#

- Developed a prototype side-scrolling game in Unity with emphasis of level destruction and projectile trajectories.
- Implemented a player velocity based shooting algorithm for enemies.

Utility Applications / Scripts

C++, PYTHON

- **Airtel Usage Notifier:** Provides hourly desktop notifications about the remaining high-speed data usage for Airtel Broadband.
- **War Thunder - Easy Dev Mode:** Provides one-click backup and configuration of client to use the developer server for the flight combat simulator War Thunder.
- **Wakoopa CSV Parser:** Provides generation of human-readable data from the CSV file provided by the application usage tracking website Wakoopa at the time of shutting down.

Skills

Programming Languages

C, C++, C#, JAVA, PYTHON, BASH, SQL

IDEs / Tools

MICROSOFT VISUAL STUDIO, ECLIPSE, GIT, UNITY, MATLAB, SIMULINK, MYSQL, CASTALIA, OMNET++, AWS

Domains

COMPETITIVE CODING, OPERATING SYSTEMS, ARCHITECTURE DESIGN, NETWORKING, SCRIPTING, DISTRIBUTED SYSTEMS, DATABASES

Extra-Curricular Activities

- Volunteered as part of registration committee for organizing the Annual ACM India event hosted by BITS Pilani, Goa Campus. (2015)
- 'Author' on dreamincode.net, a programming resource and help community. Badge awarded for writing tutorials and code snippets. (2009)

Hobbies

TABLE TENNIS, FLIGHT SIMULATORS, PHOTOGRAPHY