

# Nikhil Vyas

SOFTWARE ENGINEER

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*Rapid Learner, Passionate Developer, Problem Solver, Steadfast*

## Experience

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### Cisco Systems India

*Bangalore*

SOFTWARE ENGINEER III

*January 2019 - Present*

SOFTWARE ENGINEER II

*June 2016 - January 2019*

- Worked with Unified Communications Technology Group on UCCE - Cisco's Enterprise Contact Centre solution providing Intelligent Call Routing, Call Treatment, Agent Management and Reporting. Worked primarily with Python, Java and C++.
- Worked on Development and creating Automation Framework for the Blended Routing: enhanced support for multitasking (Voice call, E-mail, Chat) for the Contact Centre agents.
- Worked on containerization of on-premise Enterprise services and delivering seamless updates without downtime.
- Automated the support queries notification and defect stats to reduce the response time on Cisco Support forums.
- Worked on developing and testing the Outbound Option High Availability feature - fault tolerance functionality for the components responsible for making scheduled Outbound Calls.
- Won in a Hackathon organized by the Business Unit. Developed various Cisco WebEx Chatbots to enhance Code Reviews, Build Monitoring and Defect Tracking.
- Consistently a high performer. Had an Individual Performance Factor(IPF) of 1.9x, 1.8x (Base: 1x).

### MathWorks India

*Bangalore*

ENGINEERING DEVELOPEMENT GROUP - INTERN

*January 2016 - June 2016*

- Worked with the Simulink team on modularization of the Simulink Mask Editor for a feature in MATLAB R2016b.
- Was offered a full-time position in two separate teams within MathWorks
- Worked primarily in Java and MATLAB. Made portions of Simulink Mask Editor pluggable and standalone.
- Provided technical support (Call, E-Mail, Forums) 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*

- Assisted in preparing learning material, quizzes and assignments for a course with around 600 students across three campuses.
- Assisted in conducting and evaluating 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.
- Research paper titled "Area Based Routing Protocol for Mobile Wireless Sensor Networks" based on this work got published in ICOIN '18, Thailand.
- Assisted (still assisting) new students to get familiar with the domain and tools used.

## Education

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### Birla Institute of Technology and Science, Pilani (Goa Campus)

M.E., COMPUTER SCIENCE

*August 2014 - June 2016*

CGPA: 7.94

### Jodhpur Institute of Engineering and Technology

B.TECH., COMPUTER SCIENCE

*September 2010 - June 2014*

AGGREGATE PERCENTAGE: 66.66%

## Skills

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### Programming Languages

PYTHON (GOOD), JAVA | C++ (INTERMEDIATE), C# (BASIC), NODEJS | REACT (ELEMENTARY), SQL

### IDEs / Tools / Frameworks

MICROSOFT VISUAL STUDIO, PYCHARM, INTELLIJ IDEA, JENKINS, SPRING, HIBERNATE, MAVEN, GIT | GITHUB, DOCKER, UNITY, MATLAB, SIMULINK, MYSQL, CASTALIA, OMNET++, AWS, NGINX

### Domains

COMPETITIVE CODING, DEVELOPMENT, CLOUD, SCRIPTING, CHATBOTS, SCALE, SYSTEM ARCHITECTURE, AUTOMATION, AGILE, PROCESS IMPROVEMENT

## Personal Projects

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### Cisco WebEx Chatbots - GitHub Reviews, Build Monitoring, Defect Tracking and Analysis

PYTHON

- Developed three Cisco WebEx Chatbots for a Hack Day in Cisco; Won. The Chatbots were extended and integrated to the official process.
- GitHub Review Bot provides SMEs notifications and reminders via Cisco WebEx messages for any GitHub Pull Request which requires their review.
- BuildWatch Bot provides notifications on Build Failures via Cisco WebEx messages and smartly recognizes owners to expedite resolution. Also provides subscription based notifications and ability to trigger any Jenkins jobs using simple chat messages.
- CDETS(Cisco Defect and Enhancement Tracking System) Bot provides access to CDETS using simple chat messages. Also provides daily, bi-weekly analysis to defect owners and management. Makes sure that critical defects get fixed in required time.
- CDETS Bot was also extended to provide E-Mail notifications to the team and management on the overall Defect Snapshot and trends - sprint by sprint.

### Area Based Opportunistic Routing

C++, OMNET++, CASTALIA

- Research paper titled "Area Based Routing Protocol for Mobile Wireless Sensor Networks" based on this work got accepted in ICOIN '18, Thailand.
- 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.
- Used NFC Tags to provide a basic interface for user to select the destination.
- Had no prior experience with Android development; Got familiar with it in a short duration.

### University Result Fetcher & Analyzer

PYTHON

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

### 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.

## Honors, Awards & Publications

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2018	<b>Publication</b> , Research Paper titled 'Area Based Routing Protocol for Mobile Wireless Sensor Networks' presented in the The 32nd International Conference on Information Networking (ICOIN). January 2018)	<i>BITS</i>
2017	<b>Winner</b> , CCBU Enterprise Hack Day - Cisco Spark Bots for Github Reviews-SME Pairing, Build Monitoring, Defect Tracking and Analysis	<i>Cisco</i>
2017	<b>Recognition</b> , Received multiple connected.recognition awards - namely Innovate Everywhere, Benefit Everyone, Our People Deal. Received for work related to Outbound Option High Availability, Reporting, ChatBots and Defect fixes.	<i>Cisco</i>

## Extra-Curricular Activities

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- 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

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GAME DEVELOPMENT, PC HARDWARE ENTHUSIAST, FLIGHT SIMULATORS, PHOTOGRAPHY,  
TABLE TENNIS