

Nitin Vivek Bharti

Department of
Computer Science and Engineering

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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2018 - Present	M.Tech	Indian Institute of Technology, Kanpur	9.0/10
2012 - 2016	B.Tech	IIIT D&M Kancheepuram	8.29/10
2011	CBSE(XII)	Kendriya Vidyalaya, Jamalpur	86.6%
2009	CBSE(X)	Kendriya Vidyalaya, Jamalpur	89.2%

Work Experience

- **Scientific Games** (June 2016 - October 2017)
Position: Associate Software Engineer, Chennai
 - Worked on addition of new features and fixing issues in Scientific Games gaming machine's OS built over windows 7 kernel.
 - Some tasks included work on support applications for employees to ease and accelerate the development of improved versions of OS and next generation interactive games for the electronic machines produced by SG to be used in Casinos.

Internships

- **Devanagari Font Search Tool** (May 2014 - June 2014)
Mentor: Dr. Girish Dalvi, IDC IIT Bombay
 - Designed website to search for Devanagari fonts, which is an interactive visual-feature based font search system for Devanagari typefaces (part of project 'e-kalpa' sponsored by the MHRD, Government of India). (<http://dsources.in/tool/devft/en/>)

Publications

- **r-Connectivity Augmentation in Trees** (December 2015 - May 2016)
Mentor: Dr. N. Sadagopan, IIIT D&M Kancheepuram
 - Designed polynomial time algorithm to convert trees to r-connected graph by augmenting minimum number of edges, edges suggested by algorithm, to the graph to increase robustness of network. RMS 31st Annual Conference, August 2016.

Key Projects

- **Rational Marketing Analysis** (May 2019 - Present)
Mentor: Dr. Nisheeth Srivastava, M.Tech. Thesis, IIT Kanpur
 - Using observable variables of users like prices, exposure to brands and transaction history with an e-commerce platform, offer constrained quantitative predictions such as will user buy from brand or will user buy the product interacting with.
- **Electronic Health Records** (January 2019 - April 2019)
Mentor: Prof. Sandeep K. Shukla, Course - Blockchain Technology and Applications, IIT Kanpur
 - Using Hyperledger Fabric designed and implemented blockchain based solution for health care sector to create, share and manage immutable medical records of patients privately and securely along with UI built using AngularJS.
- **Casually Precedes Data Race Detector** (January 2019 - April 2019)
Mentor: Dr. Swarnendu Biswas, Course - Analysis of Concurrent Programs, IIT Kanpur
 - Casually Precedes is sound predictive algorithm to detect data races for which only Datalog implementation exists.
 - Implemented two offline versions of CP data race detector one using matrix and second using Vector Clocks with optimistic program reordering with the help of python and RoadRunner to detect data races and tested on some benchmarks.
- **Secure File Sharing** (January 2019 - April 2019)
Mentor: Dr. Pramod Subramanyan, Course - Computers System Security, IIT Kanpur
 - Designed and implemented online file sharing application using GO language where users can create and share text documents to be viewed and edited by the allowed users securely and privately where information of file can't be learnt using database.
- **D-Kettle** (January 2015 - April 2015)
Mentor: Dr. Prem Kumar, Course - Product Design Practice, IIIT D&M Kancheepuram
 - Designed and developed a working model of dual purpose kettle that can be used to both heat and cool water using Peltier element with remotely operable feature using Bluetooth and Arduino UNO along with an option to operate manually.
- **Online Examination Portal** (January 2015 - April 2015)
Mentor: Dr. N. Sadagopan, Course - Software Engineering, IIIT D&M Kancheepuram
 - Designed a web application to create, store and evaluate online examinations for courses. An integrated platform where teacher can create a scheduled exam and students can attempt the exam with an option to reveal result instantly or later.

Technical Skills

- **Programming Languages:** C • C++ • Python • \LaTeX • C# • HTML • CSS • PHP • MySQL • GO • PowerShell scripts
- **Software:** Visual Studio • Jupyter • Composer • Git • MATLAB • PHPMyAdmin • WinDbg • Process Explorer

Extra-Curricular Activities

- Received special mention in Veilage event organised by **Samgatha, 2015** at IIIT D&M Kancheepuram.
- Participated in Game Design Workshop at **Design and Degree Show (DDS) 2014** at IDC, IIT Bombay.
- Participated in **37th Jawahar Lal Nehru Science Exhibition 2009-10** from Kendriya Vidyalaya Jamalpur.
- Participated in **National Youth Parliament Competition, 2007-08** from Kendriya Vidyalaya Jamalpur.