Shreelekha Tanna

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Summary

I love solving complex problems and exploring new technologies. I am passionate about graph theory and algorithms as well as influenced by programming in all major languages like Java, Ruby, Python in web, mobile or enterprise platforms. My passion for Graph Theory led me to pursue the master's degree in Computer Science from Concordia University (Montreal, Canada) with a thesis in the area of Graph Theory. I gained experience and expertise in development skills by working in various academic projects, trainings and projects of self-interest. I want to apply my deep knowledge in technology to positively affect the lives of millions daily. I look forward to being a part of a team that is driven and fast-paced.

Experience

2016–2017 **Mobile application developer**.
-Developing mobile app using React native.
-Developing iOS news app using swift 3 and Xcode

2015–2016 **Software Engineer - Ruby on Rails, AngularJS**, *United Cheerleading*, Columbus, GA, USA.
'UnitedClassSolutions' is a B2B product, primarily developed for United Cheerleading. It aims to modernize the managerial tasks in organizations in Educational & Fitness area across the United States.

Technologies: **Ruby on Rails, AngularJS, HTML5, CSS3, PostgreSQL**

Demo: **http://smartclassmanager.herokuapp.com/**

Responsibilities:
- Design architecture of the back-end api.
- Implement tested back-end api to serve AngularJS powered front-end.
- Built a front-end client .

2012–2015 **Graduate Research Assistant**, *Concordia University*, Montreal, Canada.
Did the research in the area of Graph Theory and Broadcasting with Dr. Havhannes Harutyunyan and fellow students.

2011–2012 **Software Engineer**, *BISAG - www.bisag.gujarat.gov.in*, Government of Gujarat, India.

Project: Open Source GIS Application for Water Resource Management in Gujarat.

Technologies: **Core Java** , GeoTools API (Java based open-source library), Swing, Multi-threading

Functionality: – Developed application to be easily usable by GIS researcher of the Government of Gujarat. Applied artificial intelligence, Graph algorithms and Map techniques to show very important results graphically and provide decision-making.
– Make the software easy to be used by thousands of GIS researchers.
– Using open source solution like this, we could help the government of Gujarat save significant amount of money spent behind enterprise GIS softwares for educational purpose.

Technical Proficiency

Mobile application: iOS mobile application development, Swift, React Native

Language skills: Java, Hibernate, Spring, JDBC, Maven, Ruby, Ruby on rails, C#.NET , Visual C++, C / C++

Web: JavaScript, AJAX, HTML5, XML, CSS3, Sass, JSP, Libraries like jQuery, Twitter Bootstrap, AngularJs (Beginner)

Software: IntelliJ, Eclipse, Sublime Text, RubyMine, Xcode, NetBeans

Web server: Apache HTTP, Apache Tomcat

Technical Skills: Algorithm development, Graph theory, Agile development, System design, Object Oriented Design, Database management, Cloud services like Heroku, Rackspace, API design, AWS

Database: MySQL, PostgreSQL, ACCESS, SQLITE.

Version Control: Git, Git flow

Operating Systems: Linux, macOS, Microsoft Windows

Others: Integration with third party SDKs and libraries, scientific writing, LaTeX

Education

2012–2015 **Masters of Computer Science**, *Concordia University*, Montreal, Canada.

2008–2012 **Bachelor in Computer Science and Engineering**, *GTU*, Gujarat, India.

Master's Thesis (2013 – 2015)

Title: Broadcasting in Harary Graphs

Supervisor: Dr. Hovhannes A. Hartyunyan

Description: - Studied the problem of broadcasting (an *NP-Complete* problem) in Harary graphs.
- Found the diameter to be $\lceil \frac{n}{2(k-1)} \rceil + 1$.
- Designed an algorithm to finish broadcasting in $\lceil \frac{n}{2k-2} \rceil + 1 + \lceil \log \frac{k+1}{2} \rceil$.
- Developed a new and improved version of the Harary graph, with better values of the diameter and the broadcast time.

Academic Projects

2013 **Study edge coloring of graph as an Np-problem and implement the Algorithm**, *Concordia University*, Montreal, Canada.
Tecnologies: Java, Swing, GraphLab, git

2012 **Implementation of communication protocols (TCP and UDP)**, *Concordia University*, Montreal, Canada.
Tecnologies: Object oriented programming in C/C++

2012 **Distributed Player Status System**, *Concordia University*, Montreal, Canada.
Technologies: Java, RMI, CORBA, Web Services, SOAP, Web Sockets

2011 **Web Application for Bank Management**, *GTU*, Gujarat, India.
Technologies: PHP, JavaScript, HTML5, CSS3, JQuery, MySQL, Apache, Linux

2011 **Chat Application**, *GTU*, Gujarat, India.
Technologies: Java, Swing, Servlet, Socket Programming

Achievements & Participation

- P. Bhabak, H. A. Harutyunyan and S. Tanna. Broadcasting in harary-like graphs. In *13th International Symposium on Pervasive Systems, Algorithms, and Networks(I-SPAN 2014)*, Chengdu, 2014.

- R. Majithiya, S. Tanna, V. Vasara and N. Srivastava. Development of Spatial data application using GeoTools library (a Java GIS toolkit) for visualization of water resource data. ICIKR-ETS-2012 (ISBN : 978-81-906220-3-5)

- Presented Paper on "Walking Motion Analysis" at International Conference on Innovative Science and Technology.