

Taranjeet Singh Bhatia

Mountain View, CA

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HIGHLIGHTS

- 10 years of programming experience including embedded and robotic systems, mobile, desktop and web platforms.
- Hands-on experience with cloud technologies (Docker, AWS, Azure, OpenStack).
- Doctoral degree in artificial intelligence with focus on multi-agent systems, human-robot interaction and teamwork recognition using machine learning methods.
- Proficiency in data structures and algorithms with strong problem-solving ability.
- Skilled in teamwork, leadership, creative thinking.

EXPERIENCE

Member of Technical Staff

COMPOSURE.AI

Jan 2016 – Present

LOS ALTOS, CA

- Design and implementation of Composable Micro-services Framework for the Multi-Cloud Optimizer.
- Design and implementation of RESTful APIs for micro-service framework.
- Design and implementation of provisioning components for Docker, AWS, Azure and OpenStack.
- Design and implementation of functionality micro-service resolvers such as Composite, Group and Migration resolvers.

Research Assistant

University of Central Florida

Jan 2011 – Dec 2015

Orlando, FL

- Coded extensive Java libraries for army funded robotic research projects.
- Simulation and modeling of social and cultural interaction of humans using multi-agent based methodologies.
- Implemented solutions for teamwork recognition where coordinated robotic agents work toward common goals, using machine learning algorithms such as reinforcement learning, neural networks, evolutionary computation and genetic programming.

Sr. Research & Development Engineer

Technido India

Nov 2009 – Nov 2010

Indore, India

- Developed firmware burning tools for embedded micro-controllers such as AVR, PIC, AT89 series.
- Extended company's business with army research labs by providing software, hardware and educational training solutions.
- Supervised designing intuitive projects and course modules in the field of artificial intelligence, embedded systems, Matlab, robotics and PCB design.

Research & Development Engineer

Sciencetech Technologies Pvt. Ltd.

Oct 2008 – Sept 2009

Indore, India

- Supervised the team for designing company's ambitious products including PCB machine and communication modules training software.
- Supervised during design, purchase and development stages of product life cycle for robotic training kits which led to establishment of separate robotic division.

Programmer Analyst Trainee

Cognizant Technology Solution

Dec 2007 – Oct 2008

Chennai, India

- Interpretation and translation of client's requirements into functional and technical designs.
- Auditing of Testing documents for health care insurance domain.
- Data integrity testing for data migration from Oracle to TeraData database.

EDUCATION

Ph.D. in Computer Science

University of Central Florida

Jan 2011 – Dec 2016

Orlando, FL

- Thesis Title: Quantitative Framework For Social Cultural Interactions.
- Modeling and simulation of human-robot interaction in social and culture environment using machine learning.

MS in Computer Science

University of Central Florida

Jan 2011 – Dec 2013

Orlando, FL

B.E. in Electronics and Instrumentation Eng.

Rajiv Gandhi Tech. University

Jun 2003 – Jun 2007

Bhopal, India

Skills

- **Languages:** Java, Python, JavaScript, HTML, PHP, CSS, SQL, VB.net, ASP.net, AJAX, Matlab, JSON, YAML
- **Tools:** Maven, Git, Jenkins, VIM, SVN, Eclipse IDE, IntelliJ IDEA, MS Visual Studio, Wordpress and Joomla
- **Operating System:** Windows, Ubuntu and Android.
- **Cloud:** Docker, AWS, Azure and OpenStack.

Projects

- **Design and Analysis of a Genetic Algorithm-Based Ms. Pac-Man Agent:** Evolutionary computation approach which outperforms the rule-based methods and could be used to direct the design of more successful, evolutionary agents for Ms. Pac-Man game.
- **Multi-Agent Based Modelling of Selflessness Surviving Sense:** We experimented on the attribution of Sugarscape agent-based social simulation with selflessness and charity norms, in order to demonstrate that a society with negative personal norms grows less than a person having norms of helping others selflessly.

Publications

- [2017] Filed patent: Systems and methods for resolving services in distributed computing environments. Authors: Taranjeet Singh Bhatia, Surekha Saharan, Nelu Mihai.
- [2016] T.S. Bhatia, G. Solmaz, D. Turgut, and L. Bölöni. Controlling the Movement of Robotic Bodyguards for Maximal Physical Protection.. In *In Proc. of the 29th Int'l Conf. of Florida Artificial Intelligence Research Society, (FLAIRS-29), May 2016.*
- [2015] T.S. Bhatia, G. Solmaz, D. Turgut, and L. Bölöni. Two algorithms for the movements of robotic bodyguard teams. . In *In Proc. of Workshop on Knowledge, Skill, and Behavior Transfer in Autonomous Robots, pp. 2–8, January 2015.*
- [2014] T.S. Bhatia, S.A. Khan and L. Bölöni. The education of a crook: reinforcement learning in social-cultural settings.. In *Proc. of Int'l Conf. on Autonomous Agents and Multi Agent Systems (AAMAS-2014), pp. 1397–1398, May 2014.*
- [2013] T.S. Bhatia, S.A. Khan and L. Bölöni. Modeling the propagation of public perception across repeated social interactions. In *Multi-Agent-Based Simulation XIII, LNCS 7838, 2013.*
- [2013] T.S. Bhatia, S.A. Khan and L. Bölöni. A modeling framework for inter-cultural social interactions. In *Second Int. Workshop on Human-Agent Interaction Design and Models (HAIDM-13) at AAMAS-2013, pp. 16–31, 2013.*
- [2013] S.A. Khan, J.A. Streater, T.S. Bhatia, S. Fiore, and L. Bölöni. Learning social calculus with genetic programming. In *Proc. of the 26th International FLAIRS Conference, May 2013.*
- [2012] T.S. Bhatia, S.A. Khan, and L. Bölöni. Towards an operational model for the propagation of public Perception in multi-agent simulation. In *13th International Workshop on Multi-Agent Based Simulation (MABS-2012), pp. 1–12, June 2012.*
- [2012] S.A. Khan, T.S. Bhatia, S. Parker, and L. Bölöni. Modelling human-robot interaction for a market patrol task. In *Proc. of 25th International FLAIRS Conference, pp. 50–55, May 2012.*