

Sina Masnadi

 masnadi.me

EDUCATION

University of Central Florida
Ph.D. in Computer Science

Orlando, FL
2015–2021 (*expected*)

Sharif University of Technology
B.Sc. in Computer Science

Tehran, Iran
2010–2015

WORK EXPERIENCE

Career Fair Plus
Full-stack Developer

Orlando, FL
Jun2016–Aug2017

- **Full-stack:** Developing web-services using Node.js, MongoDB, Heroku, AWS, and Angular JS
- **Cloud:** I was in charge of transforming the traditional servers to cloud services using Node.js and AWS (Lambda, S3, and EC2).
- **Docker:** Creating a coherent easy to use development environment using Docker
- **Android:** I also helped with the Android app development by integrating Google Firebase services for user profile management.

Cafe Bazaar
Android Developer

Tehran, Iran
Dec2012–Aug2015

Cafe Bazaar is the largest private mobile software company in Iran. I worked on its main product, called "Bazaar", which is an Android application marketplace (similar to Google Play) for Iranian smartphone users. Currently, it has more than **36 million** active users. Some of my contributions in this company are as follows:

- **User Experience:** UI/UX design based on persona, scenario, and goal
- **Image Caching System:** Creating an Android image caching system (this happened before Fresco, UIL, Picasso, and other libraries become popular)
- **Improving UX** using user study, A/B testing and data analytics
- **Implementing root installation** for apps. Automatic update of user's installed apps which mimics Google Play and App Store
- **Designing and implementing server/client data transfer protocols and data structures**
- **Collaboration in implementing APK delta update** (Updating Android apps by downloading only their diff)

Ghabzak – Acquired
Co-founder

Tehran, Iran
2013–2018

An Android application for paying bills.

WallpaperHaa
Creator

Tehran, Iran
2013–2017

An Android wallpaper application with more than 300,000 active users.

Web Developer
Freelance

Tehran, Iran
2010–2011

Creating e-commerce websites for two incorporations

COMPUTER SKILLS

Programming: Java (7 years), Android (6 years), Node.js (3 years), C++ (4 years), AngularJS (3 years), JavaScript (7 years), Django (1 year), Python (4 years), C# (4 years)

OS: Proficiency with Unix based operating systems and Windows

Development: MEAN Stack, Agile Development, Git, Jira, Phabricator, Scrum Methodology

Other: Unity 3D, Matlab, Shell Scripting, \LaTeX , Gradle, Bootstrap, Adobe Photoshop, Adobe Illustrator

PUBLICATIONS

- "ConcurrentHull: A Fast Parallel Computing Approach to the Convex Hull Problem"** 2020
S Masnadi, Joseph J. LaViola
International Symposium on Visual Computing (ISVC) 2020
video
- "AffordIt!: A Tool for Authoring Object Component Behavior in Virtual Reality"** 2020
Sina Masnadi, Andrés N. Vargas González, Brian Williamson and Joseph J. LaViola
Graphics Interface 2020
video
- "VRiAssist: An Eye-Tracked Virtual Reality Low Vision Assistance Tool"** 2020
Sina Masnadi, Brian Williamson, Andrés N. Vargas González and Joseph J. LaViola
Proceedings IEEE Virtual Reality 2020
video
- "AffordIt!: A Tool for Authoring Object Component Behavior in VR"** 2020
Sina Masnadi, Andrés N. Vargas González, Brian Williamson and Joseph J. LaViola
Proceedings IEEE Virtual Reality 2020
- "A Sketch-Based System for Human-Guided Constrained Object Manipulation."** 2019
Sina Masnadi, Joseph J. LaViola Jr, Jana Pavlasek, Xiaofan Zhu, Karthik Desingh, and Odest Chadwicke Jenkins
arXiv preprint arXiv:1911.07340 (2019)
- "Investigating the Value of Privacy within the Internet of Things"** 2019
Sina Masnadi, Joseph J. LaViola Jr., Jana Pavlasek, Xiaofan Zhu, Karthik Desingh and Odest Chadwicke Jenkins
Proceedings of the ICRA, RT-DUNE Workshop, 2019
- "Investigating the Value of Privacy within the Internet of Things"** 2017
Alex Mayle, Neda Hajiakhoond Bidoki, Sina Masnadi, Ladislau Boeloeni, and Damla Turgut
GLOBECOM 2017 IEEE Global Communications Conference, pp. 1-6. IEEE, 2017

ACADEMIC PROJECTS

- Current:** NSF NRI - Sketching Geometry and Physics Informed Inference for Mobile Robot Manipulation in Cluttered Scenes, *Supervisor:* Dr. J.J. LaViola
- Current:** CUDA-based GPU accelerated convex hull calculation, *Supervisor:* Dr. J.J. LaViola
- Current:** Virtual Reality and Augmented Reality Accessibility for visually impaired, *Supervisor:* Dr. J.J. LaViola
- 2017:** Single view 3D model reconstruction, *Supervisor:* Dr. H. Foroosh
- 2017:** A new parallel approach to Convex Hull problem using CUDA, *Supervisor:* Dr. D. Dechev
- 2016:** Creating Depth of Field Effect, adaptive level of detail, and selection and manipulation in VR Environment using Eye-Tracking in Oculus Rift and Kinect, *Supervisor:* Dr. J. J. LaViola
- 2016:** A Fruit Ninja game using Microsoft Kinect as the input device for gesture recognition . The player can control the sword and do other body gestures to grab objects and move around , *Supervisor:* Dr. J. J. LaViola
- 2016:** A Star Wars game using Microsoft Kinect as the input device for gesture recognition . The player can control the light saber and do other gestures to grab objects , *Demo, Supervisor:* Dr. J. J. LaViola
- 2015:** Recreating MiniSAT SAT solver using Java, *Supervisor:* Dr. S. Jha
- 2014:** Recreating Bertrand competition model using Vensim and NetLogo, *Supervisor:* Dr. R. Ramezani
- 2014:** Studying an economic problem caused by certain laws using Vensim, *Supervisor:* Dr. A. Mashayekhi
- 2014:** Creating an example of PPTP VPN (client/server) using Java , *Supervisor:* Dr. R. Ramezani
- 2013:** Research involving Multimedia Datamining, *Supervisor:* Dr. M. Madani
- 2013:** Creating a chatroom project for several end users with file tranfer support, *Supervisor:* Dr. R. Ramezani
- 2013:** Creating a full example of an FTP server/client, *Supervisor:* Dr. R. Ramezani
- 2012:** Simulating an ecosystem of creatures obeying Operating Systems' rules *via* MATLAB, *Supervisor:* Dr. A. Zarei
- 2011:** Designing a web-based game using servlet (Apache Tomcat), JS, and HTML, *Supervisor:* Dr. A. Zarei
- 2011:** Building a simple P2P file transfer system in Java, *Supervisor:* Dr. A. Zarei
- 2011:** Recreating a complete Pac-Man game in Java including the AI for the ghosts, *Supervisor:* Dr. A. Zarei
- 2010:** Creating a complete game of chess using Java, *Supervisor:* Dr. A. Zarei