Mojtaba Noghabaei

919-798-6820 snoghab@ncsu.edu
https://www.noghabei.com
https://www.linkedin.com/in/mojtaba-noghabaei/

Education

North Carolina State University (NC State)	**2022**

- **Ph.D.** Civil, Construction, and, Environmental Engineering (pursuing)
- **M.CS.** Computer Science (pursuing)

University of Tehran	**2017**

- **B.S.** Civil and Environmental Engineering

Research Experience

Graduate Research Assistant (NC State)	**2017-2018**

- Developing cutting edge applications with Unity3D enabled by Tobii/HTC VR device and EEG devices for investigation of correlation between neurological signals and visual hazards
- VR tool for cost estimation purposes for improving customer satisfaction rate
- Cloud-based Immersive Remote Inspection System using UAV
- Outdoor robotic system containing a ground robot and a blimp capable of autonomous navigation using visual sensors
- Pipe Overflow Prediction Model in Stormwater Networks and Visualization Using Mixed Reality
- Real-Time Image Localization and Registration with BIM using Perspective Alignment for Indoor Monitoring of Construction

Industry Experience

Programmer and VR developer	Tecnosa Research Office, Tehran, Iran	**2016 – 2017**

- Developed commercial VR models for residential buildings and VR tools for heavy crane simulation and crane technician's training
- BIM based bridge management system for maintenance scheduling using **Navisworks API** and metaheuristic Algorithms
- Commercial VR models for residential buildings
- VR heavy crane operator training
- Designing user interface (UI) for energy analysis systems in BIM

Intern and Programmer	Imen Sazeh Fadak, Tehran, Iran	**2016 – 2017**

- Developed Sketchup and VR models for residential buildings

Teaching Experience

Graduate Teaching Assistant	**2017-2018**

- CE 301 Civil Engineering Surveying and Geomatics

Undergraduate Teaching Assistant	**2016-2017**

- CSC-112: Introduction to Computing-Visual Basic Programming

Skills

Programming	Python, C#, C++, VB, FORTRAN, JAVA, Navisworks API
Software	Microsoft Project, AutoCad, Unity3D, Stingray, Etabs, Safe, Revit, Navisworks

Awards

Graduate Merit Award (GMA) Fellowship	**2017**

Publications

Vahid Balali, Mojtaba Noghabaei, Arsalan Heydarian, and Kevin Han; Improved Stakeholder Communication and Visualizations: Real-time Interaction and Cost Estimation within Immersive Virtual Environments. *Construction Research Congress 2018*

Navid Kayhani, Hosein Taghaddos, Mojtaba Noghabaei, and Ulrich (Rick) Hermann; Utilization of Virtual Reality Visualizations on Heavy Mobile Crane Planning for Modular Construction. *35Th International Symposium on Automation and Robotics in Construction (ISARC 2018)*