•¡˙ Houston, TX

# Education

Hadi Beyki

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## Master of Science, Civil-Structural Engineering

University of Houston, Texas, USA (2023 - 2025) | **GPA:** 4.0/4.0

## Master of Science, Civil-Structural Engineering

University of Tehran, Tehran, Iran (2016 - 2019) | **GPA:** 3.7/4.0

## Bachelor of Science, Civil Engineering

University of Tehran, Tehran, Iran (2012 - 2016) | **GPA:** 3.7/4.0

# Professional Experience

## Research Assistant, University of Houston, Structural Laboratory (2023 - Present)

* Designed prestressed concrete elements, including 7-wire strands, using hand calculations in accordance with AASHTO and TxDOT manuals.
* Investigated transfer and development lengths for stainless steel applications, contributing to the modification of the current AASHTO equation.
* Conducted experimental studies to evaluate the behavior of prestressed concrete with stainless steel components.
* Developed Finite Element Models of prestressed concrete girders using ATENA software for structural analysis.
* Drafted detailed technical reports for the National Cooperative Highway Research Program (NCHRP) 12-120 project.
* Created and presented technical reports, leveraging MicroStation and Autodesk AutoCAD for precise drafting.
* Modeled and designed 3D bridge elements using Open Roads Bentley for complex structural layouts.

## Design Engineer, Tehrani Kiyan Construction Group, Tehran, Iran (2020 - 2023)

* Detailed hand calculation of steel structural design in residential buildings.
* Analysis and hand calculated design of concrete and composite structures using SAP 2000 and ETABS for residential buildings
* Designed and analyzed concrete structures including shallow foundations like isolated, strip and mat foundation using SAFE.

## Design Engineer, CFT IRAN Co., Tehran, Iran (2017 - 2020)

* Designing and analysis of steel and Concrete Filled steel Tube (CFT) structures using TEKLA Structures.
* Hand calculated design of steel and CFT structures.
* Analysis and design of industrial steel structures like laboratory buildings.
* Reanalysis and rehabilitation of available concrete structures with FRP materials.

## Research Assistant, University of Tehran (2016 - 2019)

* Conducted experiments on pozzolanic materials and investigated the feasibility of converting kaolin to calcined clay for pozzolanic activity.
* Researched Limestone Calcined Clay Concrete (LC3) for durability and mechanical assessments.

# Publications

Dousti, A., Beyki, H., Shekarchizadeh, M. “Strength and Durability Performance of Mortars Incorporating Calcined Clay as Pozzolan in Comparison with Silica Fume,” Journal of Civil Engineering and Materials Application, September 2022.

# Software Skills

## Engineering Software:

* Autodesk AutoCAD, MicroStation, Open Roads Bentley, Tekla Structures, SAFE, ETABS, SAP2000, ATENA.

## Project Management Tools:

* Microsoft Office Suite, Microsoft Project

## Programming:

* MATLAB, Python, Fortran.

# Technical skills

* **Prestressed Bridge Elements** following **AASHTO and TxDOT** standards.

## Steel and Concrete Structure Design using hand calculations and software tools.

* **Shallow Foundation Design** (Isolated, Strip, Mat).
* **Rehabilitation & strengthening** of structures using **FRP materials**.
* **3D modeling and drafting** of bridge elements using **Open Roads Bentley, MicroStation, and AutoCAD**.
* Development of **FE Models** for prestressed concrete girders using **ATENA**.
* Structural modeling and analysis using **SAP2000, ETABS, SAFE**.
* This applicant has work authorization (OPT) and will be eligible to obtain permanent residency without employer sponsorship within one year.

Dear Hiring Manager,

I am excited to apply for the Senior Civil Engineer position in Houston. With a Master of Science in Civil-Structural Engineering from the University of Houston and over seven years of hands-on experience in structural and civil engineering design, I am eager to bring my expertise and dedication to your esteemed team.

In my role as a Research Assistant at the University of Houston's Structural Laboratory, I have led advanced projects involving prestressed concrete design. I have also contributed to national research initiatives such as the NCHRP 12-120 project, focusing on innovative design solutions aligned with AASHTO and TxDOT standards. My proficiency in designing tools, including AutoCAD, MicroStation, OpenRoads, SAP2000, and ETABS, has allowed me to manage complex structural layouts and produce accurate engineering deliverables.

Prior to my academic research role, I worked as a Design Engineer, where I led and designed steel, concrete, and composite structures, including foundations, and industrial facilities. This broad experience has provided me with a deep understanding of infrastructure projects from initial feasibility studies to final implementation.

Additionally, I am fully authorized to work in the U.S. under OPT and will be eligible to obtain permanent residency without employer sponsorship within one year. While I am in the process of pursuing my Professional Engineer (PE) license, I am fully committed to obtaining it as part of my professional development.

I am highly motivated to contribute to your team’s mission of delivering innovative and compliant civil engineering solutions. I look forward to the opportunity to discuss how my background aligns with your company's goals. Thank you for your time and consideration.

Sincerely, Hadi Beyki