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| Ufuk Sen  Civil Engineer, MSc | Houston, TX, USA  ufuk\_sen@outlook.com  +1 281 732 4684  [ufk-sn.github.io](https://ufk-sn.github.io/) |

Objective

**(I already have an Employment Authorization Documentation Card)**

I am a structural engineer with a master's degree specializing in earthquake engineering of concrete dams. I have five years of experience in the structural and hydraulic design of dams, their spillways and outlet works including cut-and-cover conduits and retaining walls, gained through extensive hands-on experience in the department of dams and hydropower plants. Now, I am seeking a position where I can apply my comprehensive understanding of engineering to contribute to the field. Excited to leverage my skills in structural and hydraulic design to enhance the resilience and safety structures.

Education

## Louisiana State University, USA Master’s Degree (2018)

**Civil Engineering – GPA: 3.43** – Thesis: Risk Assessment of Concrete Gravity Dams under Earthquake Loads

During my graduate studies, I focused on the seismic assessment of concrete gravity dams. I used Finite Element Analysis software, ANSYS, to model the dam, incorporating fluid-structure interaction (FSI) and soil-structure interaction (SSI) for more accurate results. Seismic fragility curves were developed to evaluate the dam's seismic performance and make risk assessment.

***Courses****: Adv. Bridge Eng., Structural Design u/ Dynamic Loads, Structural Reliability, Prestressed Concrete, Mech. of Materials*

## University of Texas at Austin, USA ESL (2016)

English as a Second Language Program

## Bulent Ecevit University, Turkey Bachelor’s Degree (2013)

**Civil Engineering – GPA: 3.02**

Skills & Software

## Earthquake Engineering, Dams and HPPs, Spillways and Outlet Works, Dynamic Analysis, Finite Element Methods, Flood Protection Structures, Retaining Walls

## ANSYS, SAP2000, AutoCAD, FLOW-3D, HecRAS, MATLAB, Python

Experience

## Project Civil Engineer General Directorate of State Hydraulic Works of Turkey (DSI)

Nov 2018 – Dec 2024 / Ankara, TR

Dep. of Dams and Hydropower Plants

My responsibility here was to check reports prepared by private companies for accuracy and compliance with regulations:

* Conducted structural analysis of dams (stability, static, dynamic etc.)
* Conducted hydraulic design of spillways and outlet work, (i.e., discharge capacity, flood routing, water surface elevation, cavitation, terminal structures design, etc.)
* Conducted stability analysis for retaining walls and flood protection structures,
* Determined place, type and size of spillways and outlet works based on topography, hydrology, type of dam, etc.
* Conducted optimization studies on spillway size vs. dam height & outlet work size vs. cofferdam height,
* Conducted slope stability and tunneling assessments.

## Control Engineer DSI 233. Division

Aug 2022 – Feb -2023 / Bartin, TR

Inspected the construction stages of Flood Protection Structures for compliance with the project.

## Field Engineer Bahadir Engineering & Aras Construction Business Partnership

Sep 2013 – Feb 2014 / Elazig, TR

Inspected the construction stages of prison, housing, workplace as parts of High Security Prison Construction Project for compliance with the project.

Publications

Sen, U., & Okeil, A. M. (2020). Effect of biaxial stress state on seismic fragility of concrete gravity dams. Earthquakes and Structures, 18(3), 285.

Awards

Awarded with a remarkable and competitive fellowship to study abroad by the Ministry of National Education of Turkey, which also funded my MSc education at LSU.