**Mohammed Alnahari**

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Ph.D. Candidate, Arizona State University, USA

Field Of Study: Civil, Environmental, and Sustainable Engineering

GPA: 3.85/4.0

BSc in Civil Engineering, King Saud University, Saudi Arabia

Cumulative GPA: 4.41/5, Honor

**Summary**: I am actively seeking smart infrastructure engineer position.  I am comfortable with multiple priorities in a fast-paced environment, strong communication skills, self-direction, and solid problem-solving skills with a focus on delivering innovative solutions.

**Relevant Coursework**: Construction Methods; Algorithms; Sustainable Construction; Machine Learning techniques, Adv Earth Systems Engineering, Uncertainty Analysis for Infrastructure, Front-End Planning, Urban Infrastructure Anatomy, and computer visualization using MATLAB.

PROFESSIONAL EXPERIENCE

* Teaching Assistant at Arizona State University Arizona, USA 08/2020 – Present

Theory and practice of trenchless construction methods. Types of equipment, site roles, engineering design,

contractual issues, and safety.

* Advisor at Envision in Georgia tech Georgia, USA 06/2021 – 08-2021

Throughout the program, I worked as an advisor teaching all phases of the design-thinking process about the challenges and constraints of executing projects that follow the sustainable development goals set forth by the United Nations. I also have the opportunity to teach several workshops that expose myself to a wide range of engineering fields. These workshops include applying electronics concepts to program a microcontroller to fly a helicopter autonomously and designing and printing a 3D Model Rocket using CAD software.

* **Steel Structure Engineer at Top Screens Company** Riyadh, Saudi Arabia 12/2018 – 01/2020

Supervised over 30 construction workers as a site supervisor. Managed all costs associated with building and civil engineering projects without compromising the quality of end results or failing to adhere to the building, health, and safety regulations.

* Teaching Assistant at King Saud University Riyadh, Saudi Arabia 12/2018 – 01/2020

Taught the subject of Water Chemistry and Water supply and draining system for over 80 Students as a Teaching Assistant

* **Additional skills:** Sewer Cad, Revit, Water Gem, AutoCAD, ETABS2016, Python, MATLAB.

INTERNSHIP

[Water Networks and Wastewater Treatment Plants at FKEC Consultant Company] KSA 02/2017 – 05/2017

Worked as a Site and Quality Control Engineer to maintain, monitor and ensure the highest quality and safety of assigned projects.

[Structure Engineer at ABV Rock Group Co. Ltd] Saudi Arabia (KSA) 06/2017 – 01/2017

-Prepared comprehensive project estimates, gathered tender and contract documentation and kept close tabs on any variations that may lead to cost fluctuations.

-Analyzed multi-store building design.

**[Highway Engineering Intern at Saudi Tech Company]** Saudi Arabia 08/2016 – 12/2016

Worked as a Site and Quality Control Engineer to maintain, monitor and ensure asphalt rehabilitations

ACADEMIC PROJECTS

**[Flexible water distribution system]** 10/2021

This project aimed to support the ASU facility management department in their decision by making a robust design that can adapt the three scenarios for future consideration by applying deep uncertainty analysis. The model's main design inputs are elevations, water demand, water distribution systems, locations, pumps, valves, and reservoirs. This project solved the optimal flexible and robust water networks. Design problem based on controlling pressure in joints and pipe flow rate.

[Surface Crack Detection] 08/2021

The datasets contain images of various concrete pipeline surfaces with and without cracks. Predicting cracks using logistic regression was very efficient to train and validate compared with CNN.

[Sustainability of Buried Infrastructure] 09/2020

This research presents a proactive literature review and assesses an existing condition of buried water pipelines, considering the physical, operational influence, pipe condition assessment and Life Cycle Cost. It presents a couple of case studies of inspections and failures and discusses some utilities used for condition assessment of pipelines to increase reliability.

[Smart mask Design to enhance safety in construction site] 10/2020

Discuss the criteria of making a mask smart and how it can assist safety in the construction site. Demonstrate awareness of the potential benefits of intelligent masks in construction sites, stimulate the development of guidelines for their use and demonstrate the benefits to human health and safety.

LICENSES & CERTIFICATE

Lean Six Sigma Green built

• Issuing authority Arizona State university, No Expiration Date

Construction Management: Modular Construction Methods

• Issuing authority LinkedIn. No Expiration Date

Driving Measurable, Sustainable Change

• Issuing authority LinkedIn. No Expiration Date

Lean Six Sigma: Analyze, Improve, and Control Tools

• Issuing authority LinkedIn. No Expiration Date

ArcGIS pro essential training

• Issuing authority LinkedIn. No Expiration Date

MATLAB

• Issuing MATLAB learning. No Expiration Date