

SUMMARY

Master's Student in Structural Engineering Pursuing a Career in Structural Design and Highly Interested in Developing Computational Tools in Engineering.

EDUCATION

University of California San Diego, La Jolla, Jacobs School of Engineering

Structural Engineering BS; Major GPA: **3.7/4**

Structural Engineering MS; Major GPA: **3.9/4**

Sept. 2016-May 2020

Sept. 2020-Dec. 2021

Undergraduate Research Symposium, UC San Diego, Undergraduate Researcher

Jan. 2020-May 2020

⇒ Automating geometry control for box girders in balanced-cantilever segmental bridge construction.

Software, RM Bridge, ADINA, SOFISTIK, SAP2000, ETABS, OpenSees, Abaqus, RISA, Ansys, AutoCAD, Revit.

Programming, JavaScript, Node JS, MongoDB, Electron, VBA, C#, HTML, CSS, Python, MATLAB.

COURSEWORK

Design:

Steel Structures Design (A),
Reinforced Concrete Design (A)
Timber Structures Design (A),
Conceptual Structural Design (A-)
Prestressed Concrete Design (A),

Advanced Design:

Advanced Steel Design (A)
Advanced Concrete Design (A)
Base Isolation Design (A),
Design of Civil Structures I (A+),
Design of Civil Structures II (A+),

Analysis

Structural Analysis (A)
Non-Linear Structural Analysis (A)
Structural Dynamics (A)
Finite Element Analysis (A+),
Geotechnical Engineering (A+)

PROFESSIONAL EXPERIENCE

Sun Engineering & Technology International, San Diego, Bridge Engineering Intern

Jan. 2020-Present

Al Shindagha Corridor Bridge

⇒ Created a routine to account for camber and casting errors in precast sets using Excel Macros.

⇒ Developed an electron application for PC to fully automate the creation of over 2000 construction drawings.

Fourth Crossing Over Panama Canal

⇒ Determined constitutive models during time-history analysis for non-linear behavior of the piers in RM Bridge.

⇒ Peer-reviewed the design of triple friction pendulum bearings on the piers using SAP2000 and MCEER-11.

Collapse of Pedestrian Bridge at FIU

⇒ Evaluated structural model of entire bridge for modelling parameters in ADINA as part of a forensic review.

Ney+Partners, Brussels, Structural Engineering Intern

July 2019-Sept. 2019

O-Tower Skyscraper

⇒ Prepared catalogue of gravity columns for five different RC profiles; including profiles not listed in Eurocode by using analysis software API to program cross-sections.

⇒ Designed composite floor framing by solving for bending moments in indeterminate beams with rigid-end zones used for a swimming pool at penthouse level.

LEADERSHIP EXPERIENCE

AISC Steel Bridge Team, La Jolla, Design Captain

Sept. 2019-March 2020

Our team built a \$10,000 A36 steel bridge against 100 specifications for the annual AISC Steel Bridge competition.

⇒ Lead a design team through an iterative design process by creating different conceptual designs and evaluating the designs with a performance index.

⇒ Compiled detailed construction drawings for machinists, welders, water jetting, and CNC machining.

⇒ Problem solving; ♦ Built lasting relationships with faculty that were not previously involved with the team.
 ♦ Organized team building exercises for team members with conflicting views and opinions.

EXTRACURRICULAR

Sigma Phi Epsilon, UC San Diego, Educational Chair

Octob. 2017-May 2018

Society of Civil & Structural Engineers, ASCE Chapter, Intramural Soccer Captain

January 2019-Present