# WILSON CHAFLA

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# **EDUCATION**

### **New York University Tandon School of Engineering**

*Master of Science*, Civil Engineering (Concentration: Structural Engineering)

Brooklyn, NY June 2023

## The City College of the City University of New York

**Bachelor of Engineering**, Civil Engineering, Cum Laude

New York, NY January 2021

**Relevant Coursework:** Advanced Reinforced Concrete Design, Structural Steel Design, Structural Analysis, Finite Element Analysis, Civil Engineering Management, Soil Mechanics, Structural and Site Planning

#### **SKILLS**

**Programming Languages: MATLAB** 

Design Software: AutoCAD, SAP 2000, CSiBridge, Revit

Applications: Microsoft Suite (Word, Excel, and PowerPoint), Bluebeam Revu

Languages: Spanish

#### **EXPERIENCE**

### NYCDOT - Roadway Repair and Maintenance

New York, NY

College Aide – Technical Services

6/19-Present

- Conduct topographic surveys to assess street grading affected by ponding ranging from **300-1000 feet** in length at locations all throughout New York City
- Develop AutoCAD street plans showing roadway alignment and utilities from field survey data that improves efficiency of preliminary project submissions by 28%
- Perform calculations through Microsoft Excel to optimize street grading for ponding issues
- Test asphalt samples to meet NYCDOT quality control standards

#### **PROJECTS**

### Senior Design Project (The City College of New York)

Spring 2020

- Reviewed flyover ramp within the Hunts Point Interstate Access Improvement Project in collaboration with transportation, environmental, and structural design teams
- Designed eleven unique pier caps in accordance with AASHTO LRFD Bridge Design Specifications and ACI 318-14

#### Finite Element Analysis of a 3-Span Bridge (The City College of New York)

Spring 2020

- Built a 3D model of Bridge No. 150190 in Pinellas County, Florida using CSiBridge
- Reviewed bridge plans to ensure accuracy in sizing of substructure and superstructure components
- Performed linear-elastic analysis for bridges to sustain dead, live, wearing surface, and settlements loads

#### Structural Steel Member Analysis Spreadsheet (The City College of New York)

Fall 2019

- Developed a **Microsoft Excel** spreadsheet capable of analyzing a user selected tension member, compression member, bending member, and beam-column
- Prepared Excel spreadsheet for general user input to ensure analysis was completed in accordance with **ANSI/AISC 360-16**

### Concrete Building Design Project (The City College of New York)

Spring 2019

- Determined design loads and performed load combination analysis using **ASCE 7-10** for a single-story building meant for laboratory use
- Designed concrete beams, slabs, columns, footings, and corresponding reinforcement sizes and spacings in accordance with ACI 318-14