Hao Chen

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EDUCATION

University of California, San Diego (UCSD)

09/2023-06/2024 (Expected)

Master of Science, Structural Engineering (Structural Analysis, Advance Composite)

San Diego, CA

Rensselaer Polytechnic Institute (RPI)

08/2019-05/2023

Bachelor of Science, Civil Engineering (Structural Engineering)

Troy, NY

Relevant Courses: Advance Structural Analysis, Advance Structural Steel, Structural Dynamics, Additive Manufacturing, Construction management, Concrete Design, Geotechnical Engineering, Beginning Programming in Civil and Environmental Engineering

WORK EXPERIENCE

Southeastern University School of Engineering

04/2022-09/2022

Research Assistant for Professor Zhiqiang Zhang

Nanjing, Jiangsu, China

- Participated in the analysis of seismic structural design principles for high-rise buildings
- Reviewed the role of TLCD in the seismic resistance of high-rise buildings and its application prospects
- Assisted in experimentally verifying the existing models for TLCD and proposed further research

Tianjin Yitiancheng Architectural Engineering Design Co., Ltd

09/2021-12/2021

Structural Engineering Assistant, Engineering Design Department

Tianjing, China

- Involved in structural analysis of a high school's teaching laboratory building
- Assisted in structural design of office buildings and gas stations in highway rest stops
- Verified concrete and steel design of beams in different structures across projects
- Altered design graphs in AutoCAD based on customer requirements

Shanghai Zhongzhi Chemical Technology Co., Ltd

05/2020-08/2020

Laboratory Assistant, Research & Development Department

Shanghai, China

- Conducted chemical tests of gelcoat and performed qualitative or quantitative analyses for new gelcoat formulas
- Prepared chemical solutions, following standardized formulas, or creating experimental formulas

RESEARCH & PROJECTS

Steel Bridge Design Review

10/2022-05/2023

Group Project, AISC Student Steel Bridge Competition

- Completed site analysis and designed a steel bridge structure with easy construction capabilities
- Utilized SAP2000 to analyze load combinations, deflections, force, and moments
- Constructed 3D models, shop drawings, fabricated the bridge and participated in the competition

Multi-Use Building Design in Latham, NY

01/2023-05/2023

Group Project, Capstone Design

- Completed site analysis and designed a three story building structure with provided site conditions
- Designed structural aspects of the project, beams, columns and girders
- Developed SAP and 3D rendering models for weekly client meetings, showcasing the project's progress and design concepts.

Structural Report for a Sculpture

08/2022

Group Course Project, CIVL 4020 Course

- Analyzed a potential structure method and performance of the 1977 sculpture Suspended by Menashe Kadishman
- Investigated material properties of the weathering steels and rationalized this choice with calculations
- Performed detailed model analysis with Simscale to calculate different forces

PROFESSIONAL SKILLS

- Language: Fluent in English, Native in Chinese
- Design Software: SAP2000, SolidWorks, Simscale, AutoDesk Software (including AutoCAD, Autodesk Fusion 360)
- Programming: C, JAVA, Python