

Lu (Sophia) Liu

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Education

Georgia Institute of Technology

M.S. in Computer Science-Machine Learning Specification (Online)

United States

Jan. 2026~ Present

- Courses: Machine Learning in Trading, Database Systems Concepts and Design

Sofia University

MBA with Data Analytics Concentration

Palo Alto, CA, United States

Sep. 2024~ Present

- GPA: 4.00

Georgia Institute of Technology

M.S. in Civil Engineering

Atlanta, GA, United States

Aug. 2016~ Dec.2017

- GPA: 3.78

Tianjin University

B.S. in Civil Engineering

Tianjin, China

Sep. 2011~ Jul. 2015

Certification

- Professional Engineer License (Civil Engineer)
- UI/UX Design for AI Products (Stanford University)

Startup Bootcamp

- Beta University (Cohort 11) *Nov. 2025~ Feb. 2026*

Programs & Affiliations

- McKinsey & Company Keep-in-Touch Program *Oct. 2025~Present*

Technical Skills

- Figma, Python, C++, Java, R, SQL, Matlab, AutoCAD, Revit, Sketchup, Etabs, SAFE, SAP 2000, RAM Concept, RAM Structural Systems, RAM Elements, RISA-3D, Blue Beam, Mathcad

Work Experience

Thornton Tomasetti

(Senior Engineer)

Chicago, IL, United States

Oct. 2021~ Aug. 2024

Led in the design of Microsoft Data Center (CHI12) (One-storey Data Center in Chicago, IL)

- Organized in-house design and documented deliverables
- Coordinated design issues with architects, MEP team and Microsoft team

Led in the design of Bus Facility Laboratory in Ohio State University (Two-storey Lab in Columbus, OH)

- Performed design and estimate of steel framing and foundations
- Coordinated design issues with clients

Participated in the design of Rise Tower (6600 ft building in Riyadh, Saudi Arabia)

- Executed and coordinated concept design of post-tensioned slabs and shear walls

Participated in the development and design of Citadel Headquarter (54-storey building in Miami, FL)

- Performed Shear wall layout analysis
- Developed and designed typical floor post-tensioned slab

Participated in the design of R3 Residential West Tower (30-storey building in Miami, IL)

- Executed and coordinated design of post-tensioned slabs, columns and shear walls

Participated in the design of 1215 W Fulton Market (34-storey Mix-used Building in Chicago, IL)

- Executed design of post-tensioned slabs, columns, shear walls and caisson foundations

Participated in the design of Wind Creek Hotel (East Hazel Crest, IL)

- Executed design of post-tensioned slabs, columns and shear walls

B-cubed Engineering
(Structural Engineer)

Westport, CT, United States
June 2021~ Oct. 2021

Participated in the repair of exterior stairs and renovation for residential buildings

McNamara • Salvia, Structural Engineers
(Design Engineer)

Miami, FL, United States
Jan. 2018~ April. 2021

Participated in the design of Florida Hospital - Tampa Expansion Tower (7-storey Hospital)

- Executed design of concrete columns, perimeter beams and pan-joist system
- Carried out miscellaneous design tasks for catwalk, canopy, retaining walls and baseplates, etc.

Participated in the design of Saltire (35-storey Hilton Bayfront Hotel in St. Petersburg, FL)

- Designed post-tensioned slabs per RAM Concept, including garage, podium and condo
- Reviewed shop drawings

Participated in the design of Sawgrass-Anchor B Connector (one-storey steel building for Sawgrass shopping mall)

- Carried out structural analysis and design per RAM Structural Systems
- Designed strip footings and grade beams per RAM Concept

Participated in the design of Pier 66 Hotel & Marina (10-storey hotel in Fort Lauderdale, FL)

- Designed post-tensioned slabs per RAM Concept, including garage and tower
- Carried out retaining wall and grade beam design

Participated in the design of Boca Raton Resort & Club (Resort in Boca Raton, FL)

- Analyzed and designed Restaurant and Conservatory per RAM Structural System
- Performed hydrostatic slab, basement and pile cap foundation design

Participated in the design of Gateway of Naples (10-storey garage and residential mixed building in Naples, FL)

- Performed post-tensioned pool slab, column and pile cap foundation design

Clark Nexsen
(Structural Engineering Intern)

Raleigh, NC, United States
May 2017~ Aug. 2017

Participated in the design of North Carolina State University Engineering Building and Florida Cutter DB SOF Cell Maintenance Hanger

Publications

- Yin, Y., Lei, P., Wu, Y., Han, Q., & Liu, L. (2016). Ultra-low cycle fatigue of tensile weld detail of typical steel beam-to-column connection. *Theoretical and Applied Fracture Mechanics.*, 86, (Part B), 187-196.
<https://doi.org/10.1016/j.tafmec.2016.07.003>