LOUIS SUNGWOO CHO

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EDUCATION

University of Illinois at Urbana Champaign, Grainger College of Engineering   **August 2020 - May 2024 (Expected)**
B.S in Civil & Environmental Engineering (Transportation), **Minor** in Computer Science   **GPA: 3.54/4.00**
Relevant Coursework: Public Transportation Systems; Traffic Capacity Analysis; Transportation Engineering; Applied Machine Learning; Algorithms & Models of Computation; Data Structures; Numerical Methods in Python; Introduction to CS and Programming in Java and C++; Discrete Mathematics; Database Systems; Systems Engineering and Economics; Statics; Dynamics; Solid Mechanics; Fluid Mechanics; Structural Engineering; Construction Management; Civil Engineering Materials; Water Resources Engineering; Engineering Design in Revit; Project-Based Civil Engineering; Linear Algebra with Computational Methods; Probability and Statistics; Differential Equations; Multivariable Calculus; Physics; Chemistry

EXPERIENCES

Undergraduate Research Assistant   **May 2023 – Present**
Smart City Laboratory at UIUC

- Assisting Professor Alireza Talebpour, Department of Civil & Environmental Engineering (Transportation) at UIUC.
- Currently doing research in Multi-agent Deep Reinforcement Learning and GPT based Framework for Traffic Shaping.

Undergraduate Researcher   **January 2023 – May 2023**
Human-Centered Autonomy Laboratory at UIUC

- Assisted Professor Katherine Driggs-Campbell, Department of Electrical & Computer Engineering at UIUC.
- Contributed to developing an End-to-End Autonomous Driving Model using TransFuser model.

Research Assistant   **May 2022 – August 2022**
Reliable Autonomy Group at UIUC

- Assisted Professor Sayan Mitra, Department of Electrical & Computer Engineering at UIUC.
- Contributed to Verse Generator for Control Verification.
- Created a data visualizing function to draw the road attributes inside the ASAM OpenDRIVE files using Python.
- Generated multiple lanes from the file parser into the control verification simulators.

EXTRACURRICULAR ACTIVITIES

President   **August 2022 – Present**
Institute of Transportation Engineers UIUC Chapter (ITE@UIUC)

- Connecting students and networking with transportation professionals by hosting conferences, seminars and field trips.
- Contributed to building the website for ITE@UIUC.
- Mentoring students who are Civil and Environmental Engineering (Transportation) Majors, Computer Science Majors and Minors.
- Lead Exhibitor for ITE@UIUC at the UIUC Engineering Open House (EOH).

SKILLS:

Programming Languages: Python, Java, C++, HTML, CSS, JavaScript, ReactJS, MySQL, MongoDB, NodeJS, Neo4j, MATLAB
Tools: Git, LaTeX, Microsoft Excel, Word, PowerPoint, AutoCAD, Revit
Languages: English, Korean

AWARDS AND RECOGNITIONS:

Grant W. Shaw Memorial Scholarship   **March 2023**
Scholarship award for students demonstrating the best leadership in traffic engineering awarded by faculty members in the transportation area of the civil engineering department at the University of Illinois at Urbana-Champaign, and the Schaumburg Chapter of the Illinois Association of Highway Engineers.

Dean's List   **May 2022**
The Dean's List is given to honor full-time students whose grade-point average (GPA) for that semester ranks in the upper 20 percent of their college every semester.