

Anthony Loh

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EDUCATION

Villanova University, College of Engineering

Expected: May 2027

B.S. in Civil Engineering, Minor in Geography

Villanova, PA

- **Award:** John Hennessy Research Fund, competitive undergraduate research grant; ASCE Student Member
- **Coursework:** Transportation Engineering; Remote Sensing; Land Use Planning & Management; CE Materials
- **In Progress:** CEE Capstone Design; Water Resources Engineering Design; Environmental Unit Operations

RESEARCH EXPERIENCE

Villanova University, Department of Civil & Environmental Engineering

Sep. 2026 to Present

Undergraduate Researcher, AI-Assisted Traffic Simulation

Villanova, PA

- Recruited into a paid appointment building a machine learning traffic simulation of campus roadway networks

Villanova University, Department of Civil & Environmental Engineering

Jan. 2026 to May 2026

Undergraduate Researcher, Transportation Systems

Villanova, PA

- Sole author of a grant-funded study isolating the 2021 Texas grid collapse from the COVID-19 mobility baseline, integrating 11 datasets in Python to establish a 20.4% statewide mobility loss, half the naive estimate
- Traced a 41.2-point gap between Austin (-36.3%) and El Paso (+4.9%), outside ERCOT, to grid not weather
- Identified 700 to 940 non-COVID excess deaths that week, 3 to 4× the official count, from a testing collapse
- Extended into a three-author manuscript under review at Veritas: Villanova Undergraduate Research Journal
- Built an interactive 3D public web visualization of the study's spatial findings (<https://alohresearch.pages.dev>)

PROJECTS

Transit Accessibility Mapping, SEPTA and NYC Subway

Summer 2026

- Processed 2M+ records from public GTFS feeds and ridership data through a Python normalization pipeline
- Built a custom JavaScript layer visualizing station-level access on a portfolio site (<https://anthonyloh.pages.dev>)

Stormwater Wetland Assessment and ADA Path Redesign

Spring 2025

- Evaluated a constructed stormwater wetland through storm chloride t-testing and cumulative probability plots
- Redesigned 722 ft of campus walkway to full ADA specs from total station surveys, holding slope under 8.33%

Waterfront Brownfield Site Development, Philadelphia, PA

Fall 2024

- Led due diligence on 262,000 ft² brownfield parcel, analyzing zoning, FEMA flood elevations, Superfund risk
- Produced RS Means estimates totaling \$73.9M across building, parking, landscaping, and earthwork cost scopes

WORK EXPERIENCE

Information Technology Technician, Villanova University

Sep. 2026 to Present

- Staff a support hotline diagnosing AV and software faults during live instruction, logged via ticketing system

Distance Education Operator, Villanova University

Sep. 2026 to Present

- Operate audio/video systems for live remote graduate engineering courses, managing streaming and archiving

Classroom Organizer, Villanova University

Aug. 2025 to Present

- Reset and inspect up to 30 classrooms across 7 academic buildings on a daily 7:00 AM shift, escalating faults

TECHNICAL SKILLS

- **Programming & Data:** Python (pandas, SciPy, scikit-learn, GeoPandas), JavaScript, HTML/CSS, R, Tableau
- **GIS & Engineering:** ArcGIS Pro, AutoCAD, Civil 3D, spatial analysis, remote sensing, GTFS data, surveying
- **Methods:** Quasi-experimental design, hypothesis testing, regression, RS Means estimation, site due diligence