

Alex Jiricek

Education

- Fall 2017 to present: The University of Iowa, Iowa City, Iowa
Major: Civil/Transportation Engineering
Minor: Geographic Information Sciences
Minor: Music

Licensure

- Passed Civil FE March 2021

Hard Skills

- Proficient/experienced in AutoCAD, Civil 3D, HEC-RAS, HEC-HMS, MATLAB, McTrans Highway Capacity Software (HCS), MS Suite, Synchro 10, Visual Basic (VBA), ArcMap, Procore, ProEst, R Studio
- Materials Design and Testing
 - Metal: Tension, Hardness, and Charpy Fracture testing
 - Concrete: Concrete Mix design (Slump and Air Content tests), Cylinder Compression, Flexural, and Splitting Tensile Strength testing
 - Asphalt: Mix Design

Soft Skills

- Languages
 - Primary: English
 - Conversational: Spanish

Work Experience

- Summer 2021: Traffic Engineering Intern, DuPage County DOT
- Summer 2016, 2017, 2018, 2019, 2020: self-employed tutor, Viola

Activities

- Fall 2017 to Spring 2019: University of Iowa Symphony Orchestra
- Spring 2019: ASCE National Concrete Canoe Competition, Mix Team Volunteer
- Fall 2019 to Spring 2020: ASCE National Concrete Canoe Competition, Mold Team
- Fall 2020 to present: ASCE National Concrete Canoe Competition, Mold Team

Professional Memberships

- Spring 2019 to present: American Society of Civil Engineers (ASCE)

Relevant Completed Coursework

- Design of Concrete Structures, Design of Transportation Systems, Transportation Infrastructure Construction Management, Principles of GIS, Traffic Engineering, Civil Engineering Tools, Civil Engineering Materials, Application Simulation to Transportation, Transportation Demand Analysis, Resilient Infrastructure and Emergency Response

Notable Projects

- Fall 2019: Traffic Impact Analysis in Ankeny, Iowa using HCS and Synchro 10
- Spring 2020: Traffic Model Creation using Visual Basic (VBA) and Synchro 10
- Spring 2020: Watershed Analysis for Iowa City stream site using HEC-HMS and StreamStats
- Fall 2020: Divided Highway Design Project, Oskaloosa, Iowa bypass
- Fall 2020: Trail Design in Civil3D (horizontal and vertical alignments, custom cross-section assemblies, volumetric analysis, engineering cost summary and design report in accordance with IowaDOT regulations)
- Spring 2021: Parking study of Downtown Waterloo, Iowa. Project through the Iowa Institute for Sustainable Communities (IISC).