

# Zoe Zaloudek, GISP, CFM

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## Education

- **Johns Hopkins University**
  - Master of Science, Dec 2016, Geographic Information Systems (GIS)
- **University of Illinois at Urbana-Champaign**
  - Non-degree-seeking graduate student, 2006-2010 (Geography)
  - Bachelor of Arts, May 2005, Liberal Arts & Sciences (Geography)  
University of Illinois at Urbana-Champaign

## Professional Experience

- **Illinois State Water Survey, Champaign, IL**
  - Assistant Research Scientist, Geospatial Science: Feb 2023 – present
    - Duties include: Develop and maintain GIS data for the Coordinated Hazard Assessment and Mapping Program. Develop and maintain Python scripts for the automation of geoprocessing tasks and streamlining of workflows, develop and maintain web mapping applications, maintain and update team website, data collection and writing for hazard mitigation plans, supervision of employees, serve on search committees, project/task management, assisting with proposals/budgeting
  - Senior Scientific Specialist, Geospatial Application Developer: Nov 2017 – Feb 2023
    - Duties included: Develop and maintain GIS data for the Coordinated Hazard Assessment and Mapping Program and the NOAA Midwestern Regional Climate Center. Develop and maintain Python scripts for the automation of geoprocessing tasks and streamlining of workflows, develop and maintain web mapping applications, supervision of student interns, data collection and writing for hazard mitigation plans
  - GIS Specialist / GIS Analyst: Oct 2005 – Nov 2017
    - Duties included: Develop and maintain GIS data for the Coordinated Hazard Assessment and Mapping Program and the NOAA Midwestern Regional Climate Center. Develop and maintain Python scripts for the automation of geoprocessing tasks and streamlining of workflows, develop and maintain web mapping applications, supervision of student interns
  - GIS Intern: May 2005 – Sep 2005
    - Duties included: Develop GIS data for FEMA's Floodplain Map Modernization program, georeferencing/digitizing, annotation placement

## Professional Certifications

- Certified GIS Professional ([GISP](#)), #18520; 2011-present
- Certified Floodplain Manager ([CFM](#)), [Illinois](#), #IL-08-00383; 2008-present

## Professional Memberships

- Illinois Association for Floodplain and Stormwater Management ([IAFSM](#)); 2006-present
- Illinois GIS Association ([ILGISA](#)); 2007-present
- American Meteorological Society ([AMS](#)); 2014-present
- American Association of Geographers ([AAG](#)); 2005-2019

## Key Technical Skills

- **Areas of Expertise:**
  - GIS/geoprocessing, Python scripting, web page & web map development, photo & video creation and editing, presentation development and delivery
- **Software:**
  - ArcGIS Pro (up to version 3.4)
  - ArcGIS Desktop - ArcInfo License (up to version 10.8.2)
  - Python (up to version 3.11.10)
  - ArcGIS API for Javascript (up to version 4.31)
  - ArcGIS for Server (up to version 10.9.1)
  - HTML / CSS / JavaScript
  - ArcGIS Online
  - Adobe Photoshop (up to version 26.0.0)
  - Adobe Premiere Pro (up to version 25.0.0)
  - RASPLOT (up to version 3.0)
  - Microsoft Office Word, Excel, Powerpoint, Access (up to version 365)
  - Microsoft Windows (up to version 11)

## Presentations

- **Workshop** (3.5 hours), ESRI-GIS Development Center at Prairie Research Institute
  - “Introduction to Python for ArcGIS”  
*Co-created and co-presented with Matthew Williams, GISP*  
Given in April 2012 and October 2011
- **Oral Presentations**
  - “Web maps of the FEMA RiskMAP Project Phases”
    - ILGISA Annual Conference (October 2024)
  - “Mapping the Wabash River Floodplain: Whence This Historic Valley?”
    - [IAFSM Annual Conference \(March 2024\)](#)
      - Voted favorite presentation of the conference by attendees
    - ILGISA Annual Conference (October 2023)
  - “CHAMP Maps”
    - FEMA CTP Seminar at EMI (April 2023)
  - “From Modeled to Mapped: How to Delineate a Floodplain”
    - [IAFSM Annual Conference \(March 2023\)](#)
    - [ILGISA Annual Conference \(October 2022\)](#)
  - “Are you SAFR not? A Flood Risk Identification GIS Web Mapping Application”  
*Co-presented with Brad McVay, GISP, CFM*
    - ILGISA Annual Conference (October 2020)
    - [IAFSM Annual Conference \(March 2019\)](#)
  - “GIS at the Midwestern Regional Climate Center: A peek behind the curtain”
    - Annual Climate Prediction Applications Science Workshop (CPASW) (May 2018)
  - “An Interactive Climate Atlas for the Contiguous United States”
    - Illinois GIS Day (November 2016)
  - “Interactive Web Maps from the Midwestern Regional Climate Center”
    - ILGISA Annual Conference (September 2015)
  - “Script Tools for Depth Grid and Floodplain Delineation”
    - ILGISA Annual Conference (October 2014)
  - “Automation is Awesome”
    - Illinois State University GIS Day (November 2013)

- “Making Maps Make Themselves: The automated creation of daily temperature and precipitation maps”
  - ILGISA Spring Conference (April 2011)
- **Poster Presentations**
  - “Tornado Tracks and Touchdowns in Illinois, 1950-2015”
    - PRI Lightning Talks & Poster Session (October 2017)
    - Illinois GIS Day (November 2016)
    - ILGISA Annual Conference (October 2016)
  - “Python-Powered GIS Products at the Midwestern Regional Climate Center”
    - [AMS Annual Conference \(January 2015\)](#)
  - “Tornado Tracks and Touchdowns in Illinois, 1950-2010”
    - Prairie Lightning Symposium (November 2012)
    - ILGISA Spring Conference (April 2012)
  - “Comparison of 1%-Annual-Chance Precipitation Totals for Illinois: A GIS-Based Approach”
    - Prairie Lightning Symposium (November 2011)
    - ILGISA Spring Conference (April 2010)

### Websites and Web Maps created and/or managed

- Illinois Flood Maps (CHAMP team website)
  - <https://www.illinoisfloodmaps.org>
- Structures At Flood Risk (SAFR) – *password protected*
  - <https://www.illinoisfloodmaps.org/safr.aspx>
- Buyouts Database for Illinois – *password protected*
  - <https://www.illinoisfloodmaps.org/buyouts-database.aspx>
- Number of web maps made for flood data presentation/comment collection:
  - 46
- Number of web maps made for hazard mitigation data presentation/comment collection:
  - 3

### Externally Funded Grant Projects

- Co-Principal Investigator. (PI: Camden Arnold, Co-PI: Glenn Heistand) “Structure-Specific Risk Assessments in the Nippersink Creek Floodplain, Lake County, IL” Award ID: 120484. December 2024. Illinois Emergency Management Agency, Lake County (Illinois). \$38,478.
- Co-Principal Investigator. (PI: Camden Arnold) “Hazard Mitigation Plan Update for Jersey County, IL” Award ID: 118010. October 2024. US Federal Emergency Management Agency, Jersey County (Illinois). \$57,187.
- Co-Principal Investigator. (PI: Glenn Heistand, Co-PI: Camden Arnold) “Structure-Specific Risk Assessments in the Nippersink Creek Floodplain, McHenry County, IL” Award ID: 117574. September 2024. US Federal Emergency Management Agency, McHenry County (Illinois). \$69,583.
- Co-Principal Investigator. (PI: Lisa Graff) “SAFR Website Support Proposal,” Award ID: 103789. April 2021. Illinois Department of Natural Resources, Office of Water Resources, Springfield, IL (OWR-404). \$19,980.
- Co-Principal Investigator. (PI: Sally McConkey, Co-PIs: Sheena Beaverson, Lisa Graff) “Technology Solutions for Community and Regional Flood Disaster Planning and Mitigation,” Award ID: 086053. March 2017. US Department of Housing and Urban Development (08-355061), Illinois Department of Commerce and Economic Opportunity. \$5,054,003.

## Publications

- Flegel, A., G. Byard, S. McConkey, C. Hanstad, N. Gaynor, and Z. Zaloudek. 2019. *Watershed-Specific Release Rate Analysis: Cook County, Illinois*. Illinois State Water Survey Contract Report 2019-06, Champaign, IL.
  - <http://hdl.handle.net/2142/103416>
- Markus, M., J. Angel, K. Wang, G. Byard, S. McConkey, and Z. Zaloudek. 2017. *Impacts of Potential Future Climate Change on the Expected Frequency of Extreme Rainfall Events in Cook, DuPage, Lake, and Will Counties in Northeastern Illinois*. Illinois State Water Survey Contract Report 2017-05, Champaign, IL.
  - <http://hdl.handle.net/2142/98926>
- Markus, M., J. Angel, G. Byard, C. Zhang, Z. Zaloudek, and S. McConkey. 2016. *Communicating the Impacts of Potential Future Climate Change on the Expected Frequency of Extreme Rainfall Events in Cook County, Illinois*. Illinois State Water Survey Contract Report 2016-05, Champaign, IL.
  - <http://hdl.handle.net/2142/90294>
- Hall, B. L., M. S. Timlin, M. E. Woloszyn, Z. A. Zaloudek, S. D. Hilberg, P. E. Guinan, J. Andresen, A. C. Curtis, R. Wolf, and P. J. Spoden, 2015. *A community frost/freeze susceptibility operational guidance tool*. *Journal of Operational Meteorology*, **3**(3), 21-29.
  - <http://dx.doi.org/10.15191/nwajom.2015.0303>

## Acknowledgements

- Gregory Byard, Bruce Rhoads, Arthur Schmidt, Robert Hudson, Nikhil Sangwan, Cecilia Cullen, Devin Mannix, Walton Kelly, Tasneem Meem, Maggie Gardner, Leo Fouts, Hunter Gross, Armando Zavalza. 2022. *Watershed-Specific Release Rate Analysis Phase III: Cook County, Illinois*. Illinois State Water Survey Contract Report 2022-03, Champaign, IL.

## Research Project

- “Comparison of ISWS Bulletin 70 with NOAA Atlas 14 for Illinois”  
*Jim Angel, Sally McConkey, Zoe Zaloudek*
  - <https://www.isws.illinois.edu/statecli/RF/rf-update.htm>

## References

- Available on request.