

Alexander C. Michels

✉ michels9@illinois.edu
🌐 alexandermichels.github.io
📄 github.com/alexandermichels

EDUCATION

Ph.D. in Spatial Informatics In Progress
University of Illinois at Urbana-Champaign

M.S. in Geography and G.I.S. In Progress
University of Illinois at Urbana-Champaign

B.S. in Mathematics and Financial Economics August 2015 - May 2019
Westminster College

EXPERIENCE

CyberGIS and CyberInfrastructure Researcher Champaign, IL
CyberGIS Center & Geospatial Information Laboratory (CIGI) *June 2019-Present*

- Lead developer of projects including a Hadoop cluster and CyberGIS-Jupyter/CJW.
- Supervised and mentored 4 undergraduate research assistants.
- Worked with tools including Docker, Docker Swarm, Kubernetes, OpenStack, and Terraform.

Systems Administrator and Software Engineer New Wilmington, PA
Titan Radio and WCN 24/7 *May 2018 - May 2019*

- Responsible for the infrastructure required to keep the radio and television station operating.

Information Technology Intern New Castle, PA
Treloar & Heisel *Sept 2018 - Dec 2018*

- Maintained databases and wrote apps for company use in Java, Python, and Visual Basic.

Data Scientist and Informatics Researcher Los Angeles, CA
Institute for Pure and Applied Mathematics at UCLA & Praedicat, Inc. *June 2018 - Aug 2018*

- Worked to automating information extraction, classification, and aggregation from web data for business profiling of over 52,600 companies and corporate entities.

PROJECTS

CyberGIS-Jupyter <https://cybergisxhub.cigi.illinois.edu/>

- Platform for reproducible science using JupyterHub on DockerSwarm and Kubernetes.
- Redesigned CJW to use Easybuild & Lmod and developed a version using K8s on Openstack.

WhereCOVID-19 <https://wherecovid19.cigi.illinois.edu/>

- Dashboard for displaying up-to-date COVID-19 statistics.
- Wrote pipeline to calculate access to medical resources. DOI: 10.1186/s12942-020-00229-x

SKILLS

Data Science: Big Data, G.I.S., Git, ML/AI, Parallel Programming, Network Science

Languages: Python, Bash, Javascript, C++, R, SQL

Technologies: Docker, Hadoop (HDFS/Spark/Yarn), Kubernetes, OpenStack, Terraform

Operating Systems: Linux, Windows