# Alexander C. Michels

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## EDUCATION
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**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

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## EXPERIENCE
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**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.

**Data Scientist and Informatics Reseacher**                       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.

**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.

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## PROJECTS
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**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

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## SKILLS
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**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