Ke Zhang

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#### Objective: Looking for positions related to GIS technician or GIS analyst position, open to other positions as well, willing to relocate. Focusing more on experience and personal growth.

#### **Education**

**State University of New York at Buffalo**

* **B.S. in Geographic Information Science (Feb 2024)**
* Relevant Coursework: Cartography, GIS for Environmental Modeling, Locational Analysis, Dynamic Modeling, Multivariate Statistics

### **Technical Skills**

**GIS Software & Tools:** ArcGIS Pro, ArcMap, ArcGIS Online, QGIS, Google Earth Engine  
**Data Management:** Spatial Databases (PostGIS, SQL), Georeferencing, Data Entry & Cleanup  
**Field Work & Mapping:** GPS Data Collection, Geocoding, Digitizing Maps  
**Programming:** Python (ArcPy, Pandas), R, SQL  
**Cartography & Visualization:** Map Design, Thematic Mapping, Remote Sensing

### **Work Experience**

#### **GIS & Data Analyst | RND4IMPACT (June 2024 - Present)**

* Managed and processed geospatial data for a non-profit organization.
* Developed and optimized data workflows to improve mapping accuracy and efficiency.
* Assisted in data-driven decision-making using GIS analytics.

#### **Community Grid Attendant | Street Office Affiliated to the Government (July 2022 - November 2022)**

* Conducted spatial analysis of population movement using GIS for COVID-19 monitoring.
* Assisted in data-driven decision-making for resource allocation and public safety measures.
* Created GIS-based reports and mapping solutions for community planning.

#### **Data Processing Assistant | Center for Disease Control and Prevention (May 2022 - July 2022)**

* Processed large datasets to support emergency response and public health analysis.
* Collaborated with public safety officials to analyze location-based travel patterns.
* Provided spatial recommendations for medical resource distribution.

### **GIS Projects & Research**

#### **Crime Distribution Analysis in Buffalo (2019.2 - 2019.5)**

* **Tools Used:** Python, ArcGIS, R, Google Cloud, MATLAB
* Developed a **P-median model** to analyze the spatial distribution of serious crimes over 25 years.
* Provided GIS-based recommendations for police patrol route optimization and station placement.
* Created crime heatmaps to visualize high-risk areas.

#### **Optimal Subway Location Planning in Buffalo (2023.2 - 2023.5)**

* **Tools Used:** ArcGIS, R, Python, Google Cloud
* Conducted **spatial analysis & network modeling** to determine optimal subway station sites.
* Integrated GIS data with demographic and economic factors for infrastructure planning.
* Created **interactive GIS dashboards** to support city planning.

#### **Mask Detection and Classification System (2022.04)**

* **Tools Used:** Python, TensorFlow, OpenCV, Google Cloud
* Developed an **automated detection system** that analyzed spatial patterns of mask usage.
* Preprocessed **large-scale image datasets** to extract geospatial trends in compliance monitoring.
* Applied **machine learning algorithms** to classify population mask-wearing behavior.
* Integrated **location-based data** to visualize risk zones using GIS tools.

### **Certifications & Additional Skills**

**Certifications:** SQL for GIS Data Management (In Progress), Esri Technical Certification (Planned)  
 **Industry Knowledge:** Utility GIS Systems (AMI, SCADA, OMS, MDMS)  
 **Other:** Valid Driver’s License, First Aid Training