YU-NING LIU

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SUMMARY

Innovative **Geospatial Data Engineer** with skills in geospatial data processing and analysis. Committed to driving data-informed decision-making to create profit and impact in the fields of **renewable energy** and **ESG**.

EDUCATION

- **University of Wisconsin-Madison, WI, USA** — **Madison, WI**
  Master of Geographic Information System & Cartography; *GPA: 3.8/4.0*   *Sep 2019 – Dec 2020*
  Courses: Advanced Quantitative Method, Geospatial Database Design and Development, Geocomputing & Big Data Analytics

SKILLS

- **Programming**: Python, JavaScript, SQL, R, SQL (PostgreSQL and PostGIS)
- **Geospatial Data Science**: Machine learning for geospatial applications, predictive modeling, geoprocessing, Lidar data classification and segmentation, drone technologies; Proficient in GIS Esri ArcGIS ecosystem
- **Web GIS**: Mapbox GL JS, Leaflet, ArcGIS API, D3.js, Google Maps API, ArcGIS Portal, ArcGIS Online
- **Business Development**: Technology communication, market analysis, development of socially responsible solutions

WORK EXPERIENCE

- **Blue Marble Geographics** — **Hallowell, ME**
  GIS Application Specialist   *Mar 2022 – Present*
  - **Consults with over 300 clients to solve geospatial problems**: achieved customers' goal from across engineering, environmental services, surveying, gas & oil and utility, by using various GIS technologies.
  - **Leads the development of GIS scripting courses**: designs and leads GIS training, contributing 40% of the department's revenue.
  - **Delivered talks to showcase geospatial solutions**: represents the company as Technical professional at trade show.

- **Cyclomedia** — **Middleton, WI**
  LiDAR Data Analyst   *Jun 2021 – Dec 2021*
  - **Conducted utility LiDAR point cloud extraction and analysis**: created a proprietary digital asset library for transportation, telecommunication, and gas industries.
  - **Optimized project process flow**: contributed to a $5 million increase in utility and communication projects.

- **University of Wisconsin, Madison** — **Madison, WI**
  Research Assistant at The Geospatial Data Science (GeoDS) Lab   *Jan 2020 – Mar 2021*
  - **Co-authored papers published in international scientific journals**: collaborating with PhD to publish research papers in Computers, Environment and Urban Systems, focusing on computer-based urban systems research, " Places for Play: Understanding Human Perception of Playability in Cities Using Street View Images and Deep Learning"(2021).
  - **Engineered data pipelines**: compiled the environmental EPA's smart location datasets and demographic datasets.
  - **Developed a custom Python spatial analysis function**: analyzed data over 100,000 Google Street View images to discern spatial patterns in Python using Matplotlib, Shapely and GeoPandas.

  GIS Metadata Technician at The Arthur H. Robinson Map Library   *Sep 2019 – Sep 2020*
  - **Managed Geospatial Data Repository for GeoData@Wisconsin**: Administered 700 geodatabases and curated archival metadata, ensuring data integrity and accessibility to enhance the discoverability of geospatial resources.
  - **Optimized Data Retrieval**: developed a Python pipeline and leveraged the Esri ecosystem (ArcCatalog) and ArcPy to automate archival Lidar and aerial imagery to improve workflow productivity.

- **Flow Inc.** — **Taipei, Taiwan**
  Business Development Intern   *Jan 2019 – Jul 2019*
  - **Participated in customer communication and AI business expansion**: empowered individuals with disabilities through innovative technology solutions.
  - **Enhanced the AI annotation market reach**: gained hands-on experience in identifying market needs and developing innovative solutions.