



Rui Yang, MGIST
Research Assistant, Public Transportation Group
North Carolina State University/
Institute for Transportation Research and Education
Campus Box 8601
Raleigh, NC 27695
919/515-8768 Fax: 919/515-8898
ryang6@ncsu.edu

PROFESSIONAL SKILLS

Data/spatial data analysis, data extraction and processing, database design and management, data form and report design, model building for spatial analysis, transportation research and analysis, origin/destination and route analysis and performance planning

EDUCATION

- 2015 **North Carolina State University**
Master of Geospatial Information Science and Technology
- 2008 **Northwest A&F University, China**
Master of Science in Entomology
- 2005 **Northwest A&F University, China**
Bachelor of Science in Forestry

EXPERIENCE

Research Assistant, Public Transportation Group, Institute for Transportation Research and Education, North Carolina State University

- Develops and maintains data collection form and database, and designs reports for Operating Statistics;
- Develops and maintains automatic data process to assist loading Operating Statistics to the database;
- Responsible for collects, analyzes, and delivers reports for annual Operating Statistics for 81 urban and 24 rural transit systems;
- Develops NTD reports and data validation process to assist in NTD data entry;
- Performs tabular data and spatial data extraction, transform and load to assist in route planning, service structuring and performing analysis;
- Develops models and tools for community transportation planning and performance analysis;
- Works with the community transportation systems to improve performance through site visits, interviews, assessments, and data analysis;
- Assists in community transportation planning and performance analysis through the development of individual system performance plans and in-depth origin/destination analyses;
- Develops automatic data process to assist in the development of zone based structured scheduling;
- Assists NCDOT with 5311 and 5307 funding formula development and responsible for updating the funding formula data resources annually;
- Performs spatial analysis to assist in community transportation planning and performance;
- Performs other data analysis, mapping, and applied research for other transit-related as necessary;

Internship, Institute for Transportation Research and Education, North Carolina State University, NC

- Assisted with development of the data export format standard for Rural Demand-Response Transportation,
- Developed python script tools of :
 - Automatic generation of Structured Scheduling table for Rural Demand-Response Transportation
 - Automatic planning service zones for Rural Demand Response Transportation

Research Assistant, *Center for Integrated Pest Management, North Carolina State University & USDA-APHIS-PPQ-CIPHIST-PERAL, NC*

- Assisted in collecting, reviewing and establishing the online cataloged pest literature inventory;
- Performed field work and statistical analysis;
- Provided technical support to the control program for the control of quarantine pest in Florida.

Visiting scholar, *Center for Integrated Pest Management, North Carolina State University & USDA-APHIS-PPQ-CIPHIST-PERAL, NC*

- Performed statistical modeling and spatial data analysis for federally-funded research projects;
- Developed probabilistic risk evaluation models;
- Created pest risk maps gallery;
- Assisted in policy development on mitigation measures and inspection procedures for new or limited pest introductions.

Research Assistant, *Center for Management of Invasive Alien Species, Institute of Plant Protection, Chinese Academy of Agricultural Sciences, Ministry of Agriculture, China*

- Responsible for data collection of exotic species in China;
- Responsible for the development of an information database of exotic species in China;
- Performed data processing, statistical analysis and GIS analysis.

PROFESSIONAL SKILLS

- 10+ years research and working experience in quantitative and spatial data analytics
- Extensive experience in transit data extraction and processing
- Extensive experience of processing large volumes of spatial and tabular data
- Extensive experience in MS Access database design and application development
- Thorough understanding of GIS and proven experience with relevant software packages (including ESRI's ArcGIS 10.x Desktop)
- Advanced in geospatial data analysis with ArcGIS, such as ArcGIS Spatial Analyst and Geostatistical Analyst extensions
- Proficient in other GIS open source software, QGIS, Grass
- Knowledge and skills in developing web map application including using API for JavaScript, Viewer for Flex, ArcGIS online
- Knowledge and skills in spatial database including ArcSDE, Postgre, PostGIS
- Experience in statistical data mining with SAS Enterprise Miner
- Advanced knowledge of most common office software including Microsoft Excel, Word, and PowerPoint
- Good analytical and problem solving abilities
- Excel in working in multi-culture environments
- Good communicator and working as a team player
- Ability to work on my own without being constantly supervised
- Fluent in both Chinese and English

SOFTWARE SKILLS

- ESRI ArcGIS, QGIS, GRASS
- Programming Language: Python, SQL, JavaScript, PHP
- Database: MySQL, MS Access, ArcSDE, PostgreSQL, PostGIS
- Statistics: SAS, JMP
- Data mining: SAS Enterprise Miner
- MS Office Suite (Word, Excel, PowerPoint, Access)