Resume of Emily Song (Zhiwen Song)

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Qualification: Master of GIS, Curtin University, WA (in progress)

Graduate Diploma of GIS (with distinction), Curtin University 2012

Bachelor of GIS, South West University, China 2006

Relevant Experience:

I have 3 years work experience, as a Geospatial Analyst, with experience in:

- Analysis of data; this includes the analysis of spatial and non spatial data within the GIS.
- Data management; this includes performing data corrections, writing scripts to compare data and for automated uploads and also conducting data quality and correction type role.
- Mapping of data; this includes creating high resolution cartography maps.
- The use of GIS systems such as the ESRI product range, FME.
- In writing scripts with Python, VBA, Visual Studio.NET, ArcObject with a good working knowledge of database systems, geodatabase and SQL.
- Providing technical support and training for customers and other teams.

Other positive attributes include:

- Good English communication skills both written and spoken.
- Able to learn quickly and understand complex issues.
- Strong desire to learn new GIS concepts, techniques and products.
- Enjoy working in teams and sharing information to help achieve the best business result.
- Enjoy working with customers/clients to understand their business requirements and to delivery an outcome that meets business expectations.
- Read informative internet sites, journal publications, news articles, etc, to stay up to date with future GIS trends.
- Exposure to other Geospatial techniques and products at Curtin University.

Summary of experience:

Western Power Corporation

January 2010 to present – Geospatial Analyst

I have 3 years work experience, as a Geospatial Analyst, with experience in:

- Spatial analysis of data, this includes:
  - Analysis of spatial and non spatial data within the GIS, to identify its current data state and areas where data improvements can be made to meet company standards.
  - For certain types of data analysis, models have been developed to automate the work.
- Data management, this includes:
  - Performing data corrections via the GIS.
  - For spatial data, writing scripts to correct data via automated bulk uploads.
  - For spatial data, writing scripts to compare data, and show maps and table representations of weekly data improvements for senior management.
  - Conducting data quality and data control responsibility with team members.
- Mapping of data, this includes:
  - For spatial data, creating high resolution cartography maps, via ArcGIS. For example, maps to show how a survey is progressing, maps to show weekly progress updates on data management updates, maps to show devices in environmentally sensitive areas, maps for auditing information, and maps for work maintenance.
- The use of GIS systems such as the ESRI product range, FME.
- Programming:
  - writing scripts in Python, VBA, Visual Studio.NET to boost the process of spatial analysis tasks and to perform quality control tasks.
  - Familiar with ArcObject and a good working knowledge of database systems, geodatabase and SQL.
- Providing technical support and training for customers and other teams.

Some major achievements include:

- In December 2013, contributed towards the development of a business solution called “digital data extract” to assist an internal business group to extract network assets data for external organizations such as LGAs, engineering and construction companies. This work entailed:
  - the task was to look at ways to improve the efficiency and to stream line processes to reduce manual work effort.

- gathering customer requirements and conducted analysis.
- FME scripts are generated to automate the data extract process.
- testing the scripts, making modifications and sort out customer feedbacks.
- finalise the whole process.

The new work flow is generated with good feedback. It saves more than 2 – 6 working days for one labour to deal with one enquiry by average.

- In August 2013, contributed towards the development of a business solution called “poles in paddocks” to assist an internal business group to Geoview and manage customer related data. This work entailed:
  - gathering requirements and conducted analysis.
  - data was uploaded into a central data store.
  - developing a system to allow the business group to view and manage these data.
  - developing a facility to extract data, translate and upload into corporate GIS. The Geoview then provided information to others business groups to allow them to view, locate and find information about this data.
  - providing technical support and training for customers, which includes writing user manuals, running training sessions and continuous technical support.

  The system is in use and with positive feedback received from the business group.

- In June 2013, contributed towards the development of a business solution called “closure analysis for field survey data” to visually demonstrate the change in device states from pre and post field work conducted in 2012-13. This work entailed:
  - gathering requirements and conducting analysis.
  - data was collected external sources such as photos, GPS coordinates, etc was analysed to determine state of information change including its data quality.
  - developing a map representation of this information in an easy to view pre and post state by geographical region.

  The map has been used by senior management and external bodies with positive feedback received.

- In April 2013, contributed towards the development of the “environmental sensitive area project” to visually demonstrate the change in device states from pre and post field work conducted in 2012-13. And to ensure these devices comply with ESA regulations. This work entailed:

- gathering requirements and conducting analysis.
- data was extracted fro GIS, and was analysed device position to their geographical area i.e. in or out of environmental geographical regions to determine state of information change including its data quality.
- analysis data which are pre and post of the project, includes: asset counts, attributes completeness measure, number of new added assets and number of deleted assets calculation.
- spatial analysis which includes: shifting analysis and kriging.
- developing map representations of these information in an easy to view pre and post state by geographical region.

The map has been used by senior management with positive feedback received.

- In June 2013, contributed towards the pre analysis of the planned "field survey data" to identify devices to be included in the field work to be conducted in 2013-14. This work entailed:
  - gathering requirements and conducting analysis.
  - data was extracted from GIS data warehouse, using Cognos and was analysed using FME to determine device position to their geographical area i.e. in or out of environmental geographical regions to determine what devices should be audited.
  - developing map representations of these information in an easy to view pre and post state by geographical region.

  The map has been used by senior management with positive feedback received.

- In July to September 2012, contributed towards the testing of a new GIS system, made up of the ESRI product. These included writing test cases, testing the GIS to ensure it meets business requirements, and preparing testing analysis reports for all testing to demonstrate to management the testing progress to date.

Curtin University

I have completed a Graduate Diploma at Curtin with distinction and currently undertaking a Master in GIS at Curtin University on track also for distinction with only one unit remaining.

Some other key points covered in these courses include:

- minor project to model GIS data to work out best location of a new facility.
- minor project to customise ArcGIS tools and toolbars to add functionalities to perform new tasks.

- a unit called project management which consists of components such as: scope, assumptions, planning, scheduling, financial management, risk management, issue management, etc.
- sound knowledge in the use of data collected with GPS and remote sensing attributes and conducting analysis for land planning.

MainRoads

September 2013 to present – Geospatial Analyst

Assigned a Master of GIS project, with one other team member at the MainRoads department. The project entails:

- gathering requirements and conducting analysis.
- currently perform data was extracted from GIS, and was analysed device position to their geographical area i.e. in or out of environmental geographical regions to determine what devices should be audited.
- pre-processing data by using spatial analysis skills to ensure the data are in right format.
- Performing spatial analysis which includes hot spot analysis, clustering analysis, cost analysis, network analysis, etc.
- preparing maps, tables and a final report and presentation of our findings to the client

The project is scheduled for completion in November 2013.

South West University

Some other key points covered in the Bachelor of GIS course includes:

- the use of SPSS to financial analysis on data from a large company.
- the use of MapInfo to do land planning analysis on data from a large company.
- subjects such as economics, finance, statistics, business management, project management, etc.