Renchen Sun

#3004 J.R Finn, 290 Westmount Road North Waterloo, ON N2L 3G3

Cell Phone: 519 - 591 - 9660

Email: r26sun@uwaterloo.ca Website: csclub.uwaterloo.ca/~r26sun LinkedIn: http://www.linkedin.com/in/renchensun

JUNIOR PROGRAMMER & GIS ANALYST

Composing extensive knowledge of DBMS & GIS with a strong foundation of computer science

Summary

Junior self-motivated student with excellent academic records (3.92/4.00 GPA), relevant 2 years programming experience in C, C++ with 10 projects on Github, and 1 year experience in Database Management System.

Area of expertise:
- Software development: C++, C, Python, Shell, OOP, SDLC, UML, SVN
- Database design: SQL, ERD, Oracle 11g, Oracle Data Modeler, IBM DB2
- GIS analysis: ArcMap, ArcCatalog, FME
- Web design: HTML, CSS, Javascript, PHP
- Operating system: Unix, Linux, Windows

Qualification

- Strong programming skills in C, C++, and OOP
- In-depth knowledge of Database Management System
- In-depth knowledge of data processing, modelling, analyzing, and conversion techniques
- Intermediate web design skills in HTML, CSS, Javascript, and PHP
- Intermediate knowledge of data structures, algorithm
- Proven quick and passionate learner, eager to face challenges and improve skills
- Excellent verbal and written communication skills
- Highly reliable self-motivated starter, can be counted on to complete assignments

Education

University of Waterloo
Bachelor of Geomatics with Computer Science Minor ---- 2012- 2014 (Expected)
Grade: 3.92 out of 4.00 GPA
Honor: Dean's Honor List (Received on May 2013)

China University of Geosciences (WUHAN)
Bachelor of Computer Science ---- 2010 - 2014 (Expected)
Honor: National Scholarship (Top 1%) (Received on December 2011)

Projects

The Game of Quadris
A simplified implementation of Tetris with some Object-Oriented Software Engineering Techniques applied. Graphical Interface Provided.
Applied Techniques:
➢ C++, Observer Pattern, Singleton Pattern, Decorator Pattern, UML, Xwindow

Auto-testing Shell Script
Developed a shell script which facilitates the auto-testing of the program.
Applied Techniques:
➢ Shell Programming

Family Tree Tracker
A C++ program which tracks family members by using N-nray tree.
Applied Techniques:
➢ N-nary tree data structure

Personal Website
Link: csclub.uwaterloo.ca/~r26sun
Applied Techniques:
➢ HTML, CSS, JavaScript, PHP

Digital Camera Purchasing System
A simple commercial databases.
Applied Techniques:
➢ Oracle Data Modeler, Oracle SQL developer, SQL, EERD

Spatial Database for main campus of University of Waterloo
Extract, transform, and load raw CAD data of main campus to ArcObjects by using FME.
Fix topology errors either by fixing topology or by digitizing objects. Create spatial
database in ArcMap. Create Metadata for spatial database.
Applied Techniques:
➢ ArcCatalog, ArcMap, Spatial Database, FME, Cartography

Transportation Analysis for Travellers in Vancouver
Use open data from Vancouver to evaluate transport stations accessibility in terms of
travelling cost, distance, and nearby landmarks. Refine, transform data by using FME.
Create spatial database for storing data, use Oracle spatial and SQL for querying
information to support decision-making.
Applied Techniques:
➢ Oracle Spatial, SQL, ArcMap, ArcCatalog, FME, Spatial Database, Cartography

Experience

Fall 2013 Environment Ambassador, University of Waterloo
September 2013 - Present | Waterloo, Ontario
● Responsible for introducing Geomatics to those students who are interested in
  applying
● Responsible for guiding and assisting students in terms of their future major
  selection
● Responsible for taking visitors for building tour in University of Waterloo

Human Computer Interaction (HCI) of whole-body computer interface (Volunteer)
August 2013 | University of Waterloo
● Cooperatively finished all tasks of body movements to interact with computer
● Completely reported all issues during the research including positiveness and
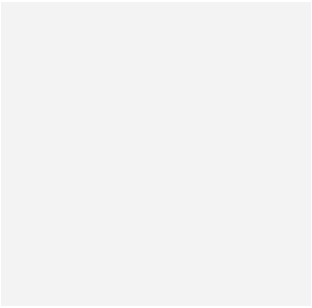 negativeness

Data structure Teaching Assistant, China University of Geosciences
June 2012 – July 2012 (2 months) | Wuhan, Hubei, China
● Successfully helped many students debug their program and figure out potential
  bugs in their programs
● Comprehensively explained linked list, graph theories, trees, sorting algorithms
  for many students

**Director of Publicity Department of Faculty of Computer Science, China University
of Geosciences**
August 2011 - June 2012 (11 months) | Wuhan, Hubei, China

- Events organizer in faculty
- Poster maker, responsible for promoting events such as Web Design Contest, Flash Contest, ACM, etc.

League Branch Secretary, China University of Geosciences

September 2010 - June 2012 (1 year 10 months) | Wuhan, Hubei, China

- Wrote a program to manage information of league members efficiently