CHLOE (HUISHI) FENG

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SUMMARY OF QUALIFICATIONS

- **Excellent Teamworking and Communication skills:** Gained from working with many different teams in different work environments
- **Highly Proficient with both Front-end and Back-end programming languages:** Python, C++, HTML, CSS, JavaScript, Node.JS, SQL
- **Knowledgeable in programming concepts such as:** Algorithms, Data-Intensive Distributed Computing, Machine Learning,
- **Highly Proficient with GIS applications and data analysis tools:** ArcGIS, QGIS, R, SQL, Tableau, Python, Excel
- **Demonstrated Strong Data Analysis and Spatial Analysis Skills:** Hydrological Models, Heat Climate model, Regression and Hotspot Analysis, and Location-Allocation Analysis
- **Created web interactive map projects:** Using Python, JSON and node.js, HTML, CSS

WORK EXPERIENCE

Basu Lab, University of Waterloo | Waterloo, Ontario

Hydrologic & Biogeochemical Modeling and Data Analysis Assistant *Sep 2019 – Dec 2019*

- Synthesized spatially explicit landscape characteristics data with R and QGIS to explore the natural and human-driven controls of nutrient pollution in the Grand River region
- Built and parametrized hydrological models to perform spatial and statistical analysis
- Presented results formally with visual integrated data and statistical support from synthesis and analysis to other groupmates weekly

Environment Canada | North York, Ontario

Monitoring & Data Services Strategist Support Officer *Jan 2019 – May 2019*

- Provided technical suggestion and created Python scripts for map automation productions, which significantly increased efficiency by about 600% and cut the processing time
- Designed and documented suitable routines for data preparation based on the development of automation, for further users who have limited skill in programming languages
- Delivered interactive dashboard in Tableau for better data visualization and interactive data presentation

National Research Council | Ottawa , Ontario

Computer Programmer *May 2018 – Sep 2018*

- Performed land-atmosphere simulations with climate model in Linux System for urban climate and Urban Heat Island magnitude in the region of Ottawa
- Explored and evaluated the effects and efficiency of different functions and algorithms within data model, provided suggestions on balancing efficiency and accuracy for data processing
- Analyzed regional climate data and spatial data with the R

Faculty of Environment, University of Waterloo | Waterloo, Ontario

Research assistant *Jan 2017 – Apr 2017*

- Completed climate models with C-shell in Linux for analyzing of future climate change.
- Cooperated with groupmates to optimize the methods and to complete experiments.
- Provided presentations or brief reports weekly to groupmates in the climate group.

PROJECTS

- **Websites**: Created a website for a newspaper company "Just the Facts" chloeycfyt.github.io/newspaper/, and a personal website about myself, chloeycfyt.github.io/portfolio/
- **Map Projects**: static maps including with ArcGIS, and interactive dynamic Web maps with Python, HTML, JavaScript, JSON, and/or node.js
- **ArcGIS Projects**: Network Analysis, Modeling, programming with Python Scripts
- **Satellite Image processing**: analysis with remote sensing and machine learning
- **Data-intensive distributed computing:** text and graph data processing and analysis in dataflow abstractions (MapReduce and Spark)

EDUCATION

University of Waterloo

2015-2020 Bachelor of Geomatics Honors, Computer Science Minor

Faculty of Environment Work Term Report Award (2019).

- **Computer Science Courses:** Data-Intensive Distributed Analytics, Algorithmic Problem Solving, Databases, Networks and Distributed Computer Systems, Machine Learning in Geospatial Science, Data Types and Structures, Introduction to Computers and Computer Systems, Management Information Systems, Business Systems Analysis
- **Geomatics Courses:** Geographic Advanced Information Systems (GIS), Spatial Analysis, Spatial Databases, Advanced Remote Sensing, Geospatial Data Science, Geoweb and Location-Based Services, Human Geographies, Global Environmental Systems, Economic Analyses for Regional Planning, Approaches to Research in Physical Geography, Geodesy and Surveying, Geography of Global Economy
- **Other Courses:** Data Management and Statistics, Applied Statistics, Introductory Calculus, Applied Linear Algebra, Cognitive Science, Environmental and Sustainability Assessment, Professional Development: Reflection and Learning, Project Management, and Communication