

Coco Chen  
mail:Mengxichen1997@gmail.com | Tel: 604-771-4884

# *Assignment 4:2*

## *Application Package*

*To: Dr. Erika Paterson,  
ENGL 301 Technical Writing, UBC*

*Name: Coco Chen  
Student #: 53535150*

*December 3, 2021*

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## Coco Chen

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# Full Job Description

The Geographic Information System (GIS) and Data Specialist primary role for the Arizona Department of Forestry and Fire Management (DFFM) is to create, modify, and update GIS data within the AZ Forestry Information Tracking System (AZFITS) and support its ability to track and report on fuel and vegetation treatment projects in Forestry Programs. In addition, this position is responsible to create or update multiple ArcGIS Online data services, maps, and applications (Dashboard, Experience/App Builder, Survey123, Field Maps, Notebook, etc.), and to support the Forestry Programs by providing mapping and analysis for a wide variety of Forestry planning and operations needs and supporting staff as needed.

### Job Duties:

#### Knowledge, Skills & Abilities (KSAs):

- Knowledge of Quality Control & Quality Assurance of GIS processes, data, and products.
- Create, modify, and update GIS attributes and features within AZFITS and Forestry data sets. Use and create scripts and online tools to automate data processing, analysis, and report generation. Provide Quality Control & Quality Assurance of GIS processes, data, and products.
- Create and update multiple ArcGIS Online data services, maps, and applications (Dashboard, Experience/App Builder, Survey123, Field Maps, Notebook, etc.) for AZFITS and Forestry Programs. Identify, propose, and implement opportunities for use of GIS solutions to improve Forestry Programs' efficiency and to reduce waste.
- Support Forestry Programs by providing analysis and mapping for a wide variety of Forestry planning and operations needs and supporting staff as needed.
- Train DFFM staff and customers in the use of Forestry's AZFITS, ArcGIS Online applications, GIS mobile applications, and analysis/reporting products.
- Drive on State business.
- Other duties as assigned.

#### Knowledge of:

- Knowledge of GIS systems and spatial data, database management systems, and development platforms.
- Knowledge of mathematics, statistics, and spatial analysis methods (queries, reasoning, measurements, transformations, descriptive summaries, optimization, hypothesis testing).
- Working Knowledge of GIS vector and raster data models, Feature Services, and File GeodB.
- Working Knowledge of GIS data entry techniques and methodologies.
- Working Knowledge of current GIS software and procedures.
- Working Knowledge of GIS scripting languages such as Python and Arcade.

#### Skills in:

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- Skilled in creating and editing GIS attributes and features using methodologies such heads-up digitizing, tracing, and conversion of other data sources.
- Skilled with ArcGIS Pro and ArcGIS Online.
- GIS scripting skills such as Python and Arcade.
- Skilled in data analysis and vector/raster-based spatial analysis.
- Skilled in identifying customer needs and developing solutions to meet their needs.
- Strong customer support skills in the use of GIS data and applications.
- Excellent problem solving skills.
- Excellent skills in time management while handling multiple projects.
- Excellent interpersonal, written and oral communication skills.

### Ability to:

- Balance, prioritize and organize multiple tasks.
- Synthesize feedback and adjust plans accordingly.
- Identify opportunities for use of solutions to improve efficiency and reduce waste.
- Work collaboratively in teams and across organizations.
- Keep up with changing GIS software, service, and scripting requirements and standards (learn, unlearn, relearn).
- Relate data to answer the specific spatial questions being asked.
- Analyze and interpret data to produce actionable information, reports, and maps.
- Operate and maintain GIS hardware software, plotter, GPS, mobile devices.
- To drive on State business.

### Selective Preference(s):

Bachelor's degree in GIS, remote sensing, geography, or a related field; GIS software training.

### Pre-Employment Requirements:

A valid Arizona Driver's License. Employees who drive on state business are subject to driver's license record checks, must maintain acceptable driving records and must complete any driver training (see Arizona Administrative Code R2-10-207.12).

### Benefits:

The Arizona Department of Administration offers a comprehensive benefits package to include:

Sick leave

Vacation with 10 paid holidays per year

Health and dental insurance

Retirement plan

Life insurance and long-term disability insurance

Optional employee benefits include short-term disability insurance, deferred compensation plans, and supplemental life insurance

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*For a complete list of benefits provided by The State of Arizona, please visit our benefits page*

Contact Us:

If you have any questions please feel free to contact Lisa Ross at [lross@dffm.az.gov](mailto:lross@dffm.az.gov) for assistance.

## ***Reference***

State of Arizona. (n.d.). "GIS Specialist." Retrieved from State of Arizona:

<https://www.indeed.com/viewjob?jk=5d923c1ff789168b&tk=1fm7p6qf0npqb801&from=serp&vjs=3>

## Coco Chen

mail:Mengxichen1997@gmail.com | Tel: 604-771-4884

November 29th,  
2021 Lisa Ross  
1700 W Washington St FL 7,  
Phoenix, AZ 85007

### ***Re: Forestry/GIS Administrators***

Dear Ms.Lisa Ross

I am Coco Chen, currently a third year computer science student at UBC. I also have a degree in Forest Resource Management from UBC and a Master's degree in Environmental Management from the University of Queensland. My desire to become a GIS intern was strongly inspired by the Co-op Board's recruitment posters. I have completed both undergraduate and graduate content related to GIS and have honed my application skills in a number of jobs in China and Canada. In addition I will be completing my first study on riparian ecology in January 2022. As a student who wants to continue my studies in GIS, I believe that the combination of my academic background, fieldwork experience, and passion for GIS make me an ideal candidate for this position.

My previous work experience in China and Canada has proven my qualifications very well. I worked as a research assistant on a wetland research team, which involved contacting everyone from government ministers and professors to construction workers. ArcMap was one of the software programs we used the most in our analysis. For example, we lost some of the data from an old pipeline. To locate it, we combined our field data with satellite images from Google Earth in ArcMap. A handful of location points allowed us to find the exact location of this pipeline. I also used this software for mapping. My colleague, an experienced technician who has been using this software for more than 10 years, taught me some effective and useful tips for using ArcMap. After the analysis, a formal report or PPT will be written for my supervisor. I also worked as a junior forest technician in Interior BC for eight months. As a small regional director in over 20 forestry blocks (includes more than 20 streams and 10 wetlands), I conducted survey and preliminary planning, including wildlife patch zone, the machine free zone, Stream & wetland, harvest plant and access roads. Because of our up to 98% excellent pest identification and accurate management program, our working group received thank you emails and commendations from BC Timber Sales.

Outdoor research is also common for me. It is such a pleasure to go from one place to another, and I love to venture out to experience unexpected weather. I drive my colleagues to suburban locations to conduct field surveys. As I am the only assistant in the team, I must be patient as I have to react to all the data saving and arrangements. Regarding my lab work, the process of model making and water analysis enhanced my patience and problem solving skills. Therefore, I believe my previous lab work experience will allow me to learn quickly in GIS related work.

In addition, the foundation in programming that my computer science major has given me gives me an advantage over other geoscience applicants in data processing. Not only can I perform basic data processing tasks, but I can also improve the algorithms of remote sensing and GIS for specific applications. I believe I am the person you are looking for.

I hope you will give me an opportunity to work with you, and my work permit is valid until September 2022. I truly appreciate the opportunity to apply for this position and I hope I will receive a positive response. If you would like to give me the opportunity to learn more about this job through an interview, please contact me at [Mengxichen1997@gmail.com](mailto:Mengxichen1997@gmail.com) or the contact information listed in the title of this application.

Sincerely,



Coco(Mengxi) Chen

# Coco Chen

mail:Mengxichen1997@gmail.com | Tel: 604-771-4884

## Summary of Qualifications

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- Dynamic motivator and problem-solver with excellent organizational skills
- Passion and capability to work outdoor and under any weather conditions
- Excellent computer skills including Microsoft Office, GIS, Tippy, VDYP, Site Tools, Photoshop, R program
- Programming Languages: Python, Java, Java script, R
- Flexible and durable under unpleasant circumstances
- Dependable and considerate
- Obtained strong communication and cooperation skills
- Equivalent Class 5 BC driver's license

## Education

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<b>University of Queensland</b> , Forestry, Vancouver, British Columbia Master of Environmental Management	July. 2020 - December 2021
<b>University of British Columbia</b> , Forestry, Vancouver, British Columbia Bachelor of Science in Forestry Major in Forest Resources Management (Co-op) Honor: 2019 Top 10% student from 2018-2019 winter session	Sept. 2015 - Apr. 2020
<b>University of British Columbia</b> , Computer Science, Vancouver, British Columbia Bachelor of Computer Science (Expected graduate in 2022 May)	Sept. 2020 – Now

## Work Experience

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<b>Sichuan Academy of Environmental Science</b> , Chengdu, China <b>Research assistant</b>	May 2021 – December 2021
<ul style="list-style-type: none"><li>• Organize surveys of watershed ecology and co-authored a 30-year environmental management plans.</li><li>• Participated in a survey of the ecological quality of XhinJin Prefecture and helped complete the 14th five-year ecological plan for the area after considering socio-economic factors.</li><li>• Solely responsible for the damage appraisal part of several environmental damage cases: appraised damage values by remote sensing mapping and field sampling to help local courts determine compensation damages. (GEE &amp; GIS)</li><li>• Participated in the preparation of the eco-environmental component of the UN project for the construction of a child-friendly city in Chengdu.</li></ul>	
<b>Forsite Consultants Ltd</b> , Kamloops, BC, Canada <b>Forest technician</b>	January 2019 –August 2019
<ul style="list-style-type: none"><li>• Designed the sustainable management of Forestry blocks.</li><li>• Surveyed economic, ecological and conditions for forestry and watershed.</li><li>• Organized data and formatted them to managing report.</li><li>• Probed bark beetle and finished preventing survey.</li></ul>	
<b>CSD Water Service Co., Ltd</b> , Beijing, China <b>Research assistant</b>	May 2018 –August 2018
<ul style="list-style-type: none"><li>• Sampled water quality every week.</li><li>• Analyzed the data by mathematical models.</li><li>• Used Professional software to simulate model (GIS, R program).</li><li>• Made slides and did presentation the project process to local government.</li></ul>	

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### *Volunteer Experience*

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*Yucatan Center for Scientific Research*, Merida, Yucatan, Mexico  
*REDD+ program assistant*

June 2016 –July 2016

- Gathered samples from various species and sites.
- Helped in samples arrangement in the laboratory.
- Used excel in data organizing and simple modules making.
- Wrote short working reports every day after work.

### *References*

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Available on request

Coco Chen

mail:Mengxichen1997@gmail.com | Tel: 604-771-4884

4085 West 40th Street  
Vancouver, BC V6N 3B9  
November 30, 2021

Dr. Rob Kozak  
Dean of Faculty of Forestry  
University of British Columbia  
Vancouver, BC V6T 1Z4

Subject: Request to submit a letter of recommendation (Coco Chen)

Dear Professor Kozak:

I hope you are doing well!

I am contacting you for a letter of recommendation for my position as a GIS specialist at the Arizona Department of Forestry and Fire Management (DFFM). I took your Forestry Biometrics course from January 2019 to April 2019. I thoroughly enjoyed it and it was particularly useful in my current study work. As a result, I received an A in the course and actively participated in answering questions to help many of my peers during the lab. I trust that you will comment on my data handling skills, learning ability, and contribution to the course community.

I would be very grateful if you would consider my request, and completely understand if you are unable to provide such a reference. In that case, please let me know as soon as possible.

For your reference, please find the job description and my resume in the attachment. Feel free to ask any question via my email: [Mengxichen1997@gmail.com](mailto:Mengxichen1997@gmail.com)

Sincerely,



Coco(Mengxi) Chen  
Encl. Résumé and Cover Letter



Coco Chen

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4085 West 40th Street  
Vancouver, BC V6N 3B9  
November 30, 2021

Dr. Harry Nelson  
Professor in Faculty of Forestry  
University of British Columbia  
Vancouver, BC V6T 1Z4

Subject: Request to submit a letter of recommendation (Coco Chen)

Dear Professor Nelson:

Hope you are well!

I'm Coco Chen your previous student in Forest Resource Management. And I am contacting you for a letter of recommendation for my position as a GIS specialist at the Arizona Department of Forestry and Fire Management (DFFM). I've taken 2 courses with you (Forest and Conservation Economics and Sustainable Forest Policy) in 2019 & 2020 and I got A in both of them. Thank you so much for providing me such a lot of forestry economic knowledge. They were especially useful when I was working as a forest technician in the interior of British Columbia.

If possible, could you please be my reference to my new position? I would be really appreciated it if you are willing to provide me a reference letter, and completely understand if you are unable to provide such a reference. In that case, please let me know as soon as possible.

I'll attach the job description and my resume below as an attachment. Hope you have a good day. Feel free to ask any question via my email: [Mengxichen1997@gmail.com](mailto:Mengxichen1997@gmail.com)

Sincerely,



Coco(Mengxi) Chen  
Encl. Résumé and Cover Letter

Coco Chen

mail:Mengxichen1997@gmail.com | Tel: 604-771-4884

St Lucia QLD 4072,  
Queensland, Australia  
November 30, 2021

Dr. Yongpin Wei  
Deputy Head of School  
School of Earth and Environmental Sciences  
The University of Queensland  
St Lucia, Australia

Subject: Request to submit a letter of recommendation (Coco Chen)

Dear Professor Wei:

Hope you are well!

I am your student Coco Chen in Master of Environment Management. In the past year, I have completed an assessment of the riparian ecosystems of 10 major rivers around the world through remote sensing mapping under your supervision. This research has meant a lot to me, and I have gained a lot from your help in it, Professor Wei. And I am contacting you for a letter of recommendation for my position as a GIS specialist at the Arizona Department of Forestry and Fire Management (DFFM).

This job is highly relevant to my previous research project. If possible, could you please be my reference to this new position and comment on my information handling skills and work ethic during the research process? I would be really appreciated if you are willing to provide me a reference letter, and completely understand if you are unable to provide such a reference. In that case, please let me know as soon as possible.

I'll attach the job description and my resume below as an attachment. Hope you have a good day. Feel free to ask any question via my email: [Mengxichen1997@gmail.com](mailto:Mengxichen1997@gmail.com)

Sincerely,



Coco(Mengxi) Chen  
Encl. Résumé and Cover Letter