HITOMI NAKAMURA

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https://nakam031.github.io/portfolio/

EDUCATION

Master of Geographic Information Science

Minor in Management of Technology

University of Minnesota | May 2019

Bachelor of Arts, Geographic Information Science

Minor in Geography

University of Minnesota - Duluth | Dec 2015

EXPERIENCE

Geospatial Support Assistant **Polar Geospatial Center (pgc.umn.edu)** Oct 2016 – present

- Served as a point of contact for over 20 polar scientists to provide geospatial consulting via phone/email.
- Delivered over 100 customized products including orthorectified satellite images, maps, and DEMs to scientists. ArcMap, Python scripts, Adobe Creative Suites, Global Mapper, SQL, Microsoft Office were utilized to accomplish the tasks.
- Created python scripts to automate the process and improve the existing workflow.
- Georeferenced around 80 historical polar maps and cataloged them by using the database.
- Digitized fast ice in entire Antarctica for seal habitat study by utilizing Landsat 7, MODIS, and DigitalGlobe images.
- Contributed to the production of ArcticDEM (arcticdem.org) by using Matlab to QA/QC the DEMs.

Graduate Student Assistant (Translator) **School of Kinesiology, University of Minnesota** Oct 2016 – Jan 2017

- Translated 10 hours long Japanese interview script to English for Dr. Yuhei Inoue's research.

Cartographic Assistant / Technician **University of Minnesota - Duluth** Sep – Dec 2015

- Utilized both ArcMap and Adobe Illustrator to create and design maps for several publications. *Please check portfolio*

GIS Intern **Facilities of Management, City of Duluth** Jun – Aug 2015

- Created custom maps such as Trail system navigation map and Tax forfeit property map by using ArcGIS & Google Earth.
- Attended business meetings and educated how to visualize the problems in maps to non-GIS professionals.

Organizer and Presenter **Arrowhead, University of Minnesota – Duluth** Sep – Dec 2015

- Organized a presentation to provide a different perspective on the history of the atomic bomb dropped on Japan to the students and communities, and to raise the question of justifying nuclear weapon usage.
- Conducted an interview with a Secretary General of Japan Confederation of A- and H-bomb Sufferers Organization, and created a short interview video as a message to the people in the U.S.

PARTICIPATION

Esri UC Student Assistant	2018	**NACIS Annual Meeting, Co-Presenter**	2015
MN GIS/LIS Consortium Poster Presentation	2017	**Mapping in Belize (Study Abroad)**	2015
Humanitarian Crisis Simulation Camp	2016	**MN GIS/LIS Consortium Student Assistant**	2015

SKILLS

ArcGIS Desktop	ArcGIS Pro	ArcGIS API for JavaScript	ArcGIS Server	ArcGIS Online	ArcPy
JavaScript	Python	Adobe Creative Suite	HTML & CSS	PostgreSQL	PostGIS
Bootstrap	jQuery	Microsoft Office	Japanese	Auto CAD	QGIS
GitHub	R	Collector for ArcGIS	Command-Line Interface		

Spatial Temporal Pattern Web Map

Using Python, PostgreSQL, PostGIS, QGIS, ArcGIS Desktop, ArcGIS Server, and Web App Builder, created animated web maps to show the spatial temporal pattern of the public transportation in the Twin Cities, MN. All Passenger Counter (APC) data from April and September 2017 were used to conduct the analysis.

ArcticDEM Demo Website

Using the ArcGIS Desktop, ArcGIS API for JavaScript, and ArcGIS Server, created web maps to show the wildfire damage in the Northwest Territories, Canada. Then, created a website to introduce the usage of PGC's Arctic DEM. Hosted the web maps by using ArcGIS Server.

Poster And Website Creation

Using ArcGIS Desktop and Adobe Creative Suites, produced a poster to introduce the Great East Japan Earthquake. Once the poster was created, migrated the data to website using ArcGIS Online, HTML, CSS, and JavaScript

Change Detection of Area Hit by Tsunami by Using Object Based Image Analysis (OBIA) Method

Using the high-resolution images from DigitalGlobe Foundation, and OBIA method, conducted a change detection research of Iwaki, Fukushima, Japan where it got affected by the Great East Japan Earthquake.

Summary Statistics with Multiple Case Fields Tool

Using Python and ArcPy, created a custom tool that calculates summary statistics with multiple case fields. Input is point data and the tool can output multiple summary statistics, such as mean center and median center.

Spatial Database Analysis and Visualization of Wildfire in Nevada

Using PostgreSQL, PostGIS, and QGIS, conducted an analysis of wildfire damage in Nevada from 2000 to 2016.

Story Map of Belize

Using ArcGIS desktop and ArcGIS online, created an interactive StoryMap of wildfire distribution in Belize. Downloaded the wildfire data from MODIS and settlement distribution data from biological-diversity.info.

Maps for Publication

Using ArcGIS Geocoding tool, edit tool, and representation tool, created a map for UMD faculty's publication. Used Adobe Illustrator for detailed cartography.

COURSES

ArcGIS I / ArcGIS II	ArcMap, Pro, Online, ArcPy	**GIS Development Practicum**	HTML, CSS, JavaScript
Web GIS & Services	JavaScript, Carto, REST, Mapbox, ArcGIS API, AWS, ArcGIS Server, PostgreSQL	**Spatial Database Design**	PostgreSQL, PostGIS, ArcGIS Server, QGIS, GitHub, AWS, Command-line Interface (CLI)
Advanced Web Design	HTML, CSS, JavaScript, GitHub, Adobe CS	**Advanced Remote Sensing**	ERDAS Imagine, eCognition Developer, OBIA, Lidar
Statistical Analysis	Excel, R	**Advanced Geo-computing**	Python, GDAL, ArcPy, CLI
GIS Project Management	Agile, Team Management	**Urban GIS and Analysis**	ArcMap, ArcGIS API, Python
CADD for Civil Engineers	AutoCAD, Civil 3D	**The Web Developer Bootcamp**	Frontend, backend (Udemy)

Please Check My Portfolio for Examples