Nicholas Occhipinti

Experienced professional in Development, GIS technology and Data Science.

648 Charter Place
Charlotte, NC 28211
(908) 764-2690
nicholasocchipinti@gmail.com
linkedin.com/in/nicholasocchipinti

EXPERIENCE

University of North Carolina at Charlotte, Charlotte, NC
GIS Developer

November 2017 - Present

Maintain the Campus web map built in Angular and other mapping applications used to track information on campus. Administer the Campus ArcGIS Server and Portal applications that are used to distribute web maps to view and edit data in the field. Develop Tableau visualizations and dashboards and distribute them on Tableau Server, as well as training groups on how to use Tableau to visualize their data.

New York City Department of Education, Brooklyn, NY
GIS Developer

April 2017 - August 2017

Developed and maintained spatial datasets for the New York City school system, consisting of over 1,800 schools and 1.1 million students. Maintained an ASP.NET MVC web application and ArcGIS map services and automated GIS tasks using Python.

Mott MacDonald, Iselin, NJ
GIS Specialist

June 2007 - March 2017

Developed Python scripts for a variety of uses such as FTP image transfer, spatial analysis, creating map books and developing geoprocessing services. Developed an ASP.NET MVC mapping application to view and edit data, that played a pivotal role in acquiring new clients. Architected a document management system that links documents to spatial assets in a web-based GIS application. Administered a production GIS Server environment to host data for approximately 25 clients.

Rutgers University, Newark, NJ
Assistant Professor

January 2011 - May 2011

Taught a course on object oriented programming covering concepts such as classes and inheritance. This program was part of a certification for veterans of Iraq and Afghanistan that provided them tools to start a career in the Information Technology field.

GIS

ArcGIS
- ArcGIS Pro
- ArcDesktop
- ArcGIS Server
- Portal for ArcGIS
- ArcGIS JavaScript API
- ArcPy Python Library

CAD
- AutoCAD
- Revit

Survey
- Trimble Equipment
- ArcGIS Collector

DATA SCIENCE

Tableau
- Desktop
- Server
- Prep

R
- Shiny
- Dplyr
- ggplot2

Python
- Pandas
- Matplotlib
- Scikit Learn

DEVELOPMENT

Angular
Python
JavaScript/TypeScript
SQL
Source Control
- Git
- GitHub
- SourceTree

Server
- NGINX
- Windows Server
- Linux

Database
- Oracle
- Postgres/PostGIS
- MongoDB

Essex County College, Newark, NJ
Assistant Professor

February 2009 - May 2009

Taught a course that was part of a GIS certificate program covering analysis techniques using ArcGIS Desktop and the Spatial, Network and 3D Analyst extensions.

Union County NJ - Bureau of GIS, Elizabeth, NJ
GIS Technician

August 2005 - June 2007

Designed maps for different County departments ranging in uses from maps used in court trials to County park maps. I also supported various County departments with assistance using the ArcGIS software suite.

EDUCATION

University of North Carolina at Charlotte, Charlotte, NC
Master's Degree - Data Science and Business Analytics

September 2020 - December 2021 (Expected)

University of North Carolina at Charlotte, Charlotte, NC
Graduate Certificate - Data Science and Business Analytics

January 2019 - December 2019 - 4.0 GPA

Oregon State University, Corvallis, OR
Graduate Certificate - Geographic Information Science

January 2012 - May 2014 - 3.93 GPA

Kean University, Union, NJ
Bachelor of Science Degree - Computer Science

September 2001 - May 2004

TRAINING

ESRI

- Configuring a Base Deployment - ArcGIS Enterprise
- Creating and Managing Utility Networks
- Configuring Utility Networks

NGINX

- NGINX Core

AutoDesk

- Revit - MEP

Udacity

- Full Stack Web Developer Nanodegree

Data Camp

- Data Scientist with Python Track

OTHER

Jira
Confluence
Google Cloud Platform

PROJECTS

ArcGIS Enterprise Upgrade

Implemented a complete enterprise upgrade of my company's GIS technology. This involved upgrading our GIS Server and Portal applications, migrating maps from ArcDesktop to ArcGIS Pro and configuring security best practices by setting up the firewall rules, reverse proxying and Shibboleth authentication to control the access.

Student Visual Analytics Project

https://nocchipi.shinyapps.io/dsba_5122_final_project/

Developed an R Shiny application that showcased data about Opioid addiction in the United States. The application was interactive and allowed the user to filter at the state and country level and by different years. This was a final project for a Visual Analytics course where our group won best project.

Pedestrian Crossing Model

Worked in Qatar with the Ministry of Transport to analyze a road network and assist with the development of a network model and data visualization tool to find suitable locations to build pedestrian crossings. Analysis was related to an infrastructure improvement project to accommodate the high volume of people expected for the upcoming 2022 FIFA World Cup.

Open Source Technology Proof of Concept

Developed a prototype web mapping application as a Proof of Concept using Open Source technology as a contingency plan in the event the city's contract with their current GIS vendor did not get renewed. I used GeoServer to connect to a SQL Server Spatial database to publish layers, OpenLayers to consume the OGC WMS and WFS services in a web application and Turf.JS to perform analysis operations. Provided a detailed report where I published the technology, methods and findings.

Web Map Editing Tool

Developed a web mapping editing tool that allowed users to perform CRUD operations on spatial data stored on an enterprise Oracle geodatabase. This tool was used for updating data for a large pipeline construction project spanning over 100 miles. Incorporated audit tracking and role based functionality in order to control and log changes in the application.

Pipeline Risk Model

Managed the creation of a geospatial risk model for a natural gas pipeline system spanning two states that determined which pipe segments in their system have the highest probability of failing. I collaborated with subject matter experts to develop formulas to calculate the probabilities of failure. Analyzed data for the calculations, ranging from a variety of factors such as pipe segment features, soil data analysis and field survey reports.