

NICHOLAS OCCHIPINTI

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TECHNICAL SKILLS

GIS Software	ArcGIS Desktop, ArcSDE, ArcGIS for Server, ArcGIS Online, QGIS, GeoServer, Synergi Gas
Software	Crystal Reports, Jira, Confluence, Balsamiq Mockups, Microsoft Office
Languages	Python, SQL, JavaScript, HTML, C#
Web Frameworks	ASP.NET MVC, Dojo, JQuery, Bootstrap, Kendo UI, ArcGIS JavaScript API, Flask
IDEs	Visual Studio, Eclipse, Toad for Oracle
Version Control	Git, GitHub, Team Foundation Server
Databases	Oracle, PostgreSQL, PostGIS, SQL Server
Operating Systems	Microsoft Windows & Windows Server, Linux Red Hat
Cloud Technology	Microsoft Azure, Google Cloud Platform

PROJECT EXPERIENCE

New York City – Department of Education – Open Source Technology Proof of Concept | 2017

- Developed a prototype web mapping application as a Proof of Concept using Open Source technology as a contingency plan if the city's contract with ESRI did not get renewed.
- Used GeoServer to link 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.
- Developed a report where I published the technology, methods and findings of the Proof of Concept
- **Technologies Used: GeoServer, QGIS, SQL Server, OpenLayers, Turf.JS**

Fieldbook - Web Map Editing Tool | 2016

- Developed a web mapping editing component that allowed users to perform CRUD operations through ArcGIS REST services to update spatial data stored on an enterprise Oracle SDE database.
- Tool was used for updating data for a \$1 billion pipeline construction project spanning over 100 miles.
- Incorporated audit tracking and role base functionality in order to control changes in the application.
- **Technologies Used: ArcGIS for Server, Visual Studio, ASP.NET, JavaScript and Oracle**

Qatar Ministry of Transport – Pedestrian Crossing Network Model | 2016

- Worked in Qatar with the Ministry of Transport to develop a GIS network model to find suitable locations to build pedestrian crossings across the entire country.
- Analysis was related to an infrastructure improvement project to accommodate the high volume of people expected for the upcoming 2022 FIFA World Cup.
- Worked as a GIS developer to analyze a road network and assist with the development of a network model and data visualization tool.
- **Technologies Used: ArcGIS, ArcObjects, Visual Studio, C#, Python**

Eastern Shore Natural Gas - Pipeline Risk Model | 2013

- 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.
- 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.
- **Technologies Used: Oracle, ArcGIS**

New York City - Metropolitan Transit Authority - East Side Access Project | 2009 - 2010

- Worked on a tunnel construction project worth over \$10 billion that would allow trains from Long Island, NY a direct route into Grand Central Station.
- Collected data from construction shifts and tunnel boring machines (TBM) to assess utilization.
- Worked as a database specialist to make sure data was being integrated correctly into my company's tunnel information management system.

Technologies Used: Oracle

New Jersey Department of Transportation - Emergency Management Application | 2015

- Developed a web mapping application that allowed users to track damage during natural disasters across the state of New Jersey.
- Designed functionality to add work orders in the field, upload photos to a file server through AJAX requests and capture spatial coordinates.
- **Technologies Used: ArcGIS for Server, Visual Studio, ASP.NET, JavaScript**

WORK EXPERIENCE

New York City – Department of Education – GIS Developer | 2017

- Developed and maintained spatial datasets and applications 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, ArcGIS map services and automated GIS tasks using Python.
- Created technical documents, supported other departments with GIS services and conducted training.
- Maintained MTA subway and bus data to analyze distances of stops for all schools and childhood centers.

Mott MacDonald - GIS Architect & Developer | 2007 – 2017

- Administered a production GIS Server environment for approximately 25 clients.
- Worked on migrating GIS servers into an enterprise Microsoft Azure Cloud environment.
- Developed Python scripts for a variety of uses such as FTP image transfer, spatial analysis, creating map books from data driven pages and developing geoprocessing services.
- Developed an ASP.NET MVC mapping application that played a pivotal role in acquiring new clients.
- Worked with the development team to architect a document management system that links documents to spatial assets in a web based GIS application.
- Architected tools using Kendo UI widgets, JQuery, Bootstrap and the ArcGIS JavaScript API that allowed clients to view, edit, search and analyze their assets spatially in a web mapping application.

Rutgers University - Assistant Professor | 2011

- Taught a course on Java programming fundamentals covering object oriented concepts such as classes, inheritance and abstraction.
- Program was part of a certification for veterans of the wars of Iraq and Afghanistan that provided them tools to start a career in the Information Technology field.

Essex County College - Assistant Professor | 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.

County of Union, NJ - GIS Technician | 2005 – 2007

- Designed maps for different County departments, ranging in uses from evidence in court trials where I served as an expert witness, to public County Park web maps using Adobe Illustrator.
- Supported various County departments with assistance using the ArcGIS software suite.

EDUCATION

Oregon State University - Geographic Information Science, Graduate Certificate

Kean University – Computer Science, Bachelor of Science