Nicolas Roldos

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Cloud, Web, Mobile, Geospatial
<dev/>

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EDUCATION

Full Stack Web Development Certification
Galvanize Inc.

July 2017

Boulder, Colorado

Master of Science in GIS
University of Redlands

August 2014

Redlands, California

Bachelor of Science in Geography
University of Maryland

December 2011

College Park, Maryland

LANGUAGES

Fluent/Native proficiency in Spanish

(written and spoken)

TECHNICAL SKILLS

Front End Skills

Swift UI, Javascript, jQuery, React, React Native, Flutter, AngularJS, Angular with Typescript, Ionic, Cordova, HTML5, CSS, Google Material Design, TailwindCSS, Bootstrap, Calcite (Esri's CSS and styling module for Javascript applications).

Server Side Skills

SSH, FTP, Node, Express, Vite, JSON, AJAX, Python Flask, Ruby, Ruby-on-Rails, Postgres, SQL, Couchbase, MongoDb, AWS IAM, AWS S3, AWS CLI, AWS Lambda, AWS API Gateway, AWS WAF, AWS EC2, AWS Lex, AWS Polly, AWS DynamoDb, AWS Route 53, AWS Rekognition, AWS KMS, AWS Amplify, AWS EBS, AWS EFS, AWS Security Hub.

Design, Testing, Scripting, Project Management

Python automated testing, bash, homebrew, npm, nvm, rvm, lite-server, Surge, Heroku, JIRA, Confluence, Adobe Photoshop, Adobe Illustrator, Adobe Xd, Android Studio, Postman, Google Chrome Developer Tools, Mozilla Developer Tools, Git, Github, Gitlab.

Workflows and Methodologies

Agile, Ci/Cd, Ui/Ux, Principle of Least Privilege, Cloud deployment, Cloud Architecture design, Linux Systems Administration, Scientific Research Methodology, Sub-meter Geographic Data Collection, Geo-Referencing, Cloud Geo-processing, Git Flow.

GIS

ArcGIS Pro 4+, ArcGIS Online, ArcGIS Javascript API, ArcGIS Python API, Postgre-SQL, PostGIS, LeafletJS, gdal, MapBox APIs, HERE Maps APIs, Google Earth, KMZ, KML.

iOS

Swift, Swift UI, Objective-C, XCode, Expo, Interface Builder, CoreLocation, Core-Graphics, MapKit, UIKit, CoreData, REST APIs, TestFlight, Apple App Store Application Process.

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WORK EXPERIENCE

iOS Engineer, Freelance Contract Developer

NAKED DEVELOPMENT, LLC

June 2024 to April 2025

Irvine, California

Re-built and Redesigned: iOS push notification & geolocation marketing based app "**Pushyy**".

Created new user flows & added location services, map-views, detail-views for consumer facing app.

Created coupon management interface for business facing app user.

Maintained code using **Git & Git flow,** using **continuous integration & continuous development**.

Deployed iOS app prototypes to show progress to Naked Development's client.

Product Engineer II

ESRI Inc.

October 2018 to June 2024

Redlands, California

Built a secured version of Wayback app for government client. Written in **React, Redux, Typescript**. Deployed satellite imagery API & imagery assets stored on **AWS S3** bucket and updated via processing on Amazon EC2 instances.

https://livingatlas.arcgis.com/wayback

Satellite Imagery Metadata server instantiation on Amazon AWS infrastructure. Deployment of metadata using ephemeral drive for redundant copies of metadata while satellite imagery metadata is processed by **Bash** & **Python** scripts in the **AWS cloud**.

Automation, algorithms, tiling schemes, publishing, deployment & dev-ops for back-end for raster web map tile services (**WMTS**). Deployed and published map tile services via **REST architecture (WMTS)**. Base-maps and satellite imagery maintained & served via **AWS s3** & **ec2** instances.

Teaching Assistant, Substitute Instructor of Ui/Ux course

University of California, Irvine

January 2018 to December 2019

Irvine, California

Led:

Classroom discussions, lectures, presentations, constructive critiques of design, workshops on technical aspects of **Ui/Ux** that overlap with Front End development.

Presented, Demonstrated and Translated:

Ui/Ux graphics produced with **Sketch** or Adobe into **jQuery**, **Javascript**, **CSS** & **HTML** for **Front-End** web development.

Maintained:

Contribution to **Ui/Ux** classes as Teaching Assistant and at times Substitute Instructor, as needed, for night and weekend classes at University of California, Irvine.

Web Developer, Mobile App Developer

TAYLOR DIGITAL, LLC

October 2017 to May 2018

San Clemente, California

Developed:

Cross platform prototype for **Location Based Marketing** (LBM) application, "**Valevo.**"

Built and Shipped:

Cross-platform app to client, using latest versions of **Ionic**, **Angular-Typescript, Cordoba, Google Material Design, Swift, Android Studio** and **TestFlight**.

Tested and Deployed (via TestFlight):

Alpha and Beta builds of app (**iOS** and **Android**) using **Ci/Cd**, in a team environment to ensure continuous fine tuning of user experience, geographic location accuracy and new feature integrations could be previewed by client and owner of "**Valevo**" app product.

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WORK EXPERIENCE

Web Developer, Product Engineering Consultant

APOLLO MAPPING, LLC

June 2017 to December 2017

Boulder, Colorado & Remote

"Image Hunter":

Core product maintenance and development on Satellite Imagery Search Engine "**Image Hunter.**"

Technology Stack:

Angular, **Google Material Design**, **Python**, **Python Flask**, local development **Postgres** with **PostGIS**, local development **SQL server**, **Celery** and **Bash** (for automating daily, weekly, monthly & quarterly imagery updates), **AWS S3**, **AWS RDS**, **AWS EC2** and **IAM** role management for staging and production.

Resolved and Remediated:

Issues with existing backend **Python Flask** code, database queries and routing for new incoming imagery data and imagery metadata.

Wrote Python Flask backend code:

To read, serialize, process and update satellite imagery assets stored on **AWS S3** bucket. Validated and tested Python Flask code to work with Staging and Production database **AWS RDS**.

Implemented Python Imaging Library (PIL):

To correct or discard occluded satellite imagery raster tiles, Jpegs, PNGs, TIFFs, and other imagery assets on backend before making it available for public API to consume and render to site visitors.

Maintained:

Development, staging and production code using **Git**, **Github**. Maintained satellite imagery **SQL** queries against local development environment database.

Tested:

SQL queries, automations and backend routing code against Development, Staging and Production environments.

Implemented Testing and Simulations:

For Development and Staging environments using **Celery automation, testing** and **server simulation suite** on new backend code that included updated satellite imagery queries against local Postgres database and local SQL server. Tested for Production environments using **AWS IAM**, **AWS RDS**, **AWS EC2** with bash launch scripts, via **AWS CLI** and **IAM** roles in Staging environment as preparation to deploy to Production servers.

GIS Specialist, Department of Environmental Resources

PSOMAS ENGINEERING

October 2014 to February 2015

Irvine, California

Designed & produced:

Digital cartographic products, environmental impact graphics, using **ArcGIS 10+**, **ArcCatalog** & **Adobe Illustrator,** user interface for sub-meter GPS app.

Implemented Data Collection Solutions:

Geographic location enabled data collection for PSOMAS Engineering's biologists, environmental scientists, archeologists, public and private sector clients.

Distribution Systems Analyst

TRC SOLUTIONS

April 2012 to May 2013

Lanham, Maryland

Data collection & Geo-Referencing:

For Pepco utility, an Exelon Energy Company, critical electrical distribution system locations in Washington D.C. & Maryland.

Produced & Deployed:

Cartographic & analytic products to utility provider's private cloud, produced using Esri's **ArcMap** software and automated with **Python**.

Assessment of critical electrical utilities & electrical utility repairs:

Management for the **Pepco's S.A.I.F.I.** regional systems project:

—`System Average Interruption Frequency Index regional project`.

Collaborated:

In tandem with **TRC** & **Pepco**, an Exelon Energy Company, project managers; out in the field with electrical engineers; in coordination with the **Washington D.C. Department of Transportation** (**DDOT**).

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TECHNICAL TRAINING & ACADEMIC EXPERIENCE

Immersive Full Stack Web Development
Galvanize Inc.

January 2017 to July 2017

Boulder, Colorado

Practiced, Implemented and Presented:

Knowledge, skill and application of **HTML**, **CSS**, **Javascript**, **AJAX**, **jQuery**, **JSON**, **Javascript frameworks** (**React** & **AngularJS**), **Node**, **npm**, **Swift** & **Xcode** to create interactive front-end & back-end web & mobile application interfaces.

Completed, Tested and Deployed:

Full-stack web applications using **agile workflows** on teams.

Created:

Four original and dynamic full-stack web applications deployed on **Heroku**, **Surge**, **TestFlight** personal website server and **Version Control Systems**.

Masters of Science in Geographic Information Systems (GIS)
University of Redlands

August 2013 to August 2016

Redlands, California

Major Individual Project (MIP) for MS in GIS Program

Development of iOS location-based app for art gallery and vinyl record store visitor data: "**Artsitree App**".

Completed 3 versions over 4 years:

- **Version 1:** Implemented **ArcGIS Geotriggers SDK** & **ArcGIS iOS Runtime SDK in Objective-C**.
- **Version 2:** Implemented iOS RegionMonitoring, MapKit, AVSession, CoreGraphics, CoreData, & CoreLocation **in Swift**.
- **Version 3:** Added **Foursquare API** to compare user check-ins with **Foursquare location data**.

—Presented Version 1 of "Artistree App" to public at Esri User Conference in San Diego, July 2014—

Center for Hemispheric Defense Studies (CHDS)
National Defense University

June 2013 to August 2013

Fort Lesley J. McNair, Washington D.C.

Internship:

Worked with **Professor of National Security Luis Kun (PhD)** at **CHDS** on research paper sponsored by the **National Defense University** on threats to the United States of America's water safety as a byproduct of unregulated drilling practices in various regions of the country.

Data Collection:

Of pertinent geographic data on arsenic and other dangerous contaminants to USA water supply as evidence for a National Defense University research paper.

Created and Configured GIS Database:

Using **Esri's ArcMap RDBMS** and **ArcCatalog** in order to create infographics and cartographic exhibits for the research paper; Visually demonstrating where dangerous contaminants had been reported in relation to large hydraulic fracture mining sites through the United States of America.

Works Published:

By Luis Kun's research team at the National Defense University, CHDS, in the **"Journal of Health and Technology, Springer-Verlag Berlin Heidelberg"**

Title of Outcome Published Research Paper:

"The Arsenic Threat: Inter-dependencies of Water, Agriculture, Food Supply, Public Health and Energy Critical Infrastructure"