FELIPE LEITE, E.I.T.

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**WATER RESOURCES ENGINEER**

I am a creative and tech-savvy civil Engineer-In-Training with coursework and experience focusing on **water resources** and **sustainable design**. I have worked in multiple fields, including water resources, land development, and geotechnical lab research. I have demonstrated a history of being efficient, organized, thorough, and able to solve problems both in a team and an independent setting . In addition to a good work ethic, I have a curiosity and a willingness to learn and reinvent solutions that keep my drive to solve engineering problems alive.

**Areas of expertise include:**

* Road profiles, alignments, contours, roadway design
* Hydrologic and hydraulic models and floodplain analysis using HEC-RAS and HEC-HMS
* Sustainable design, best management practices, and green infrastructure
* Report writing and technical presentation creation 
* ASTM standard testing procedures, instrumentation use, installation, and monitoring
* Experience with some Fairfax/Washington DC Design Guidelines

**EDUCATION AND TECHNICAL PROFICIENCIES**

**Bachelor of Science in Civil and Infrastructure Engineering**  - George Mason University (Graduated May 2018)

*Relevant Coursework includes:*

* Water Supply and Distribution: basic and complex design of water distribution networks using WaterCAD.
* Water Resources Engineering: Hydrology and hydraulics and their application to civil engineering design.
* Water Resources Planning and Design: Study of water law and the policies and social issues surrounding water projects.
* Sustainable Land Development: Design of structures and developments using LEED design and sustainable tactics.

 **Career Accolades**:

* Dean’s list for 7 out of 8 semesters in undergraduate, graduated Cum Laude (GPA 3.6)
* EIT Obtained October 2018
* Member of the Mid-Atlantic Chapter of ASCE
* LEED Green Associate exam registered for April 2020

**Technical Proficiencies:**

* Python (geospatial, HEC-RAS automation, file manipulation)
* 1D and 2D HEC-RAS, HEC-HMS, TR-55, PeakFQ
* ArcGIS, WaterCAD, Google Earth Pro, Microsoft Office Suite
* Autodesk AutoCAD, Civil 3D, Revit; Bentley Microstation
* Fluent in English and Portuguese. Conversational knowledge of French and Spanish.



**PROFESSIONAL EXPERIENCE**

**DEWBERRY -** Fairfax, VANovember 2018-Present

**Water Resources Engineer**

* I conduct flood mapping and floodplain analysis using HEC-RAS and HEC-HMS modeling software.
* I innovate by using python to automate processes, including bulk hydraulic modeling (HEC-RAS using python).
* I create detailed models, using real world survey data for structures and channels and calibrated to correctly model real-world flooding. These models are highly scrutinized, and as such I have to be skilled in delivering high quality models to the client.
* I check over and confirm the designs and models of my fellow coworkers, and this has given me exposure to other types of modeling such as water quality models, dam breaches, and stormwater management.
* I have geospatial skills necessary to accomplish complex tasks , main proficiencies are ArcGis, Arc Pro, and QGIS.
* I write technical documents for clients, create and give presentations, and take on pseudo-task managing roles within our project teams.
* I would like to highlight a project for the Nature Conservancy involving best management practices. By creating a highly detailed HEC-RAS model for the Washington D.C. and using geospatial python coding, a tool was created that allowed the Nature Conservancy to find the best locations for new green infrastructure in the Anacostia Watershed. This project combined high quality HEC-RAS modeling, efficient and creative python coding, and a handle on green infrastructure design and the factors that go into taking a green infrastructure installation from theoretical to reality.

**ENGINEERING AND SOFTWARE CONSULTANTS, INC., *at FHWA Turner-Fairbank Highway Research Center* -** McLean, VA

**Lab Technician** May 2018 - October 2018

* Set up multiple unique lab experiments, including long term test piers, freeze thaw durability chamber, geosynthetic tensile tests, using ASTM standards.
* Collected data and interpreted results such that government officials could make policy changes to AASHTO and VDOT regulations.

***URBAN LTD –*** Annandale, VA Nov 2017-May 2018

**Engineering Intern**

* I was part of the design group of multiple new subdivisions and to inject green infrastructure design into these developments. -
* I was responsible for tasks including road profiles and roadway design, road and pipeline alignments, watershed analysis and floodplain analysis using ArcGIS, HEC-RAS, and finally cost estimation.
* I designed multiple green infrastructure installations through my time at this position, with assistance from other engineers.

***CELPLAN TECHNOLOGIES, INC. –*** Reston, VA Jul 2015 - Nov 2017

**Engineering Assistant**

* I assisted in the calibration and development of new software and databases for this telecommunications company.
* I conducted equipment setup, model calibration, and usage of data logging devices to obtain results from survey information.
* Using these results, I created charts, reports, and graphics that were delivered to clients.
* I was involved in cost estimation as well.
* I was part of a team that designed data connection points on new Amtrak trains and updated company’s entire topography database with little supervision.