Colton Avila

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Education

University of Texas – Austin, TX | August 2015 - May 2019
- B.A. Sustainability Studies, Minor: Computer Science – GPA : 3.8

Oregon State University – Corvallis, OR | Expected Graduation Date: June 2022
- M.S. Biological & Ecological Engineering – Thesis Topic: Influence Propagation in Socio-Ecological Systems

Research

OSU | *Graduate Research Assistant* | July 2020 – *Present*
- Currently modeling social influence flow and their effects on landscape futures.

University of Texas | *Research Assistant II* | April 2019 – July 2020
- Conducted field work across Texas and built multiple models to assess the diversity and health of distinct fish communities.
- Imported, georeferenced, and cleaned multiple collections from different institutions.
- Managed and supervised volunteers with tasks within the lab.
- Worked with researchers to update and maintain the Native Fish Conservation Network project.

University of Texas | *Undergraduate Researcher* | Dec. 2017 – Dec. 2018
- Queried and maintained the FOTX database, as well as increased web accessibility.
- Created a gap sampling visualization tool that pinpoints areas in Texas that require increased sampling efforts
- Generated multiple feature analyses as well as modeled species distribution and movement.
- Developed computational pipelines using Python and R to generate visualizations and statistical analyses to satisfy grants and relay information to other researchers.

Employment

NASA Langley Research Center| *Geospatial Analyst* | Jan. 2019 – April 2019
- Collaborated with an interdisciplinary team to generate replicable urban heat island and flooding assessment methodologies using both Google Engine and Python.
- Analyzed 3,000+ Landsat scenes to generate flood indices that highlight areas in need of environmental resiliency attention.
- Validated the USGS Landsat Level-2 Surface Temperature Science Product by determining overlapping scene dates and locations for Terra ASTER and MODIS land surface temperature products and comparing values recorded by each satellite.

Economic Growth and Endangered Species Management – Texas CPA | *Policy Analyst* | May 2018 – Aug. 2018
- Wrote departmental briefs on the Endangered Species Act, including case studies on specific endangered species.
- Collaborated on the initial stages of the Matagorda Bay Research Project which included: conducting literature reviews of native species, drafting technical documents, mapping historic and current locations of oyster reefs, and discussing conservation options with regional biologists and university researchers.

Skills

Coding Languages: Proficient in Python, JavaScript, SQL, & R. Familiar with Swift and Java.
Software & Environments: Proficient in Tableau, ArcMap, ArcPy, and QGIS. Have worked on projects that used Django, Bootstrap, PostgreSQL, and ASP.NET.