Sky Jones

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PROFESSIONAL EXPERIENCE

Remote Sensing Research Assistant

- Middle Tennessee State University, Department of Geosciences — Jun 2019 – Present
  - Conducted research related to the automated characterization of riparian vegetation using LiDAR

Environmental Scientist II

- KCI Technologies, Inc. — Dec 2018 – May 2019
  - Managed interns during field data collection
  - Created technical designs and plans for stream restoration and bank stabilization projects

Environmental Scientist I

- KCI Technologies, Inc. — Oct 2016 – Dec 2018
  - Planned and performed field work for stream and wetland restoration, dam removal and stormwater design projects
  - Prepared technical reports for clients
  - Designed computational models to analyze stream morphology and surface hydrology and provided CAD and GIS support
  - Developed scripts and software in R and Python to automate data analysis and aid stream design

Engineering Intern

- KCI Technologies, Inc. — May 2016 – Oct 2016
  - Collected and evaluated environmental data for stream and wetland restoration sites and prepared reports
  - Created R scripts that increase data analysis accuracy and cut up to 10 hours from report preparation per project

EDUCATION

Middle Tennessee State University

- Post-Baccalaureate Undergraduate, Biochemistry — Jun 2019 – Present

The University of North Carolina at Chapel Hill

- Bachelor of Science in Geology – with Distinction — Sep 2012 – May 2016
  - Cumulative GPA: 3.67

SELECTED PROJECTS

pyfluv

- Independent Project — Dec 2018 – May 2019
  - Designed a Python package for the analysis of fluvial geomorphology with a focus on stream restoration
  - Implemented both standard analyses as well as novel algorithms designed to facilitate metanalyses of previously collected data as well as the processing of data that is collected remotely (e.g., via LiDAR)

KCI Geoengine

- KCI Technologies — Feb 2018 – May 2019
  - Designed a web mapping application that automatically identifies potential stream and wetland restoration projects across North Carolina using remotely collected data
  - Acquired $27,000 in internal funding
  - Hired and managed an employee to assist with project
  - Provided multi-department training in the use of the final application

Quantitative Prediction of Clastic Sequence Stratigraphy

- Undergraduate Research — Fall 2014 – Summer 2016
  - Overhauled and maintained a fuzzy logic based MATLAB program used to simulate deltaic deposition
  - Added over 40 major features that improve quality of output, runtime and ease of use
  - Presented at the 2016 Anadarko Research Symposium and 2016 UNC Climate Change Symposium

SKILLS

- Software and Programming Languages
  - Python, R, Microstation, AutoCAD, ArcGIS (including ArcPy and Model Builder), SQL, MATLAB, ENVI, Advanced Excel (including VBA programming)
- Technical
  - Stream and wetland assessments (morphology, hydrology, hydraulics and biology), remote sensing, CAD drafting, GIS, watershed analysis, cartography, scientific programming and modeling, surveying, GPS data collection

PRESENTATIONS **PYFLUV: A Python Module for Subwatershed Scale Fluvial Analysis**

- Professional oral presentation, TN Water Resources Symposium   Mar 2019

Modeling the Geologic Response of Climate Belt Migration with Fuzzy Logic

- Student poster, UNC Climate Change Symposium   Apr 2019

Semiquantitative Prediction of Deltaic Sequence Stratigraphy Using fuzzyPEACH

- Student poster, UNC Anadarko Research Symposium   Apr 2019

ACADEMIC
AWARDS

- Martin L. Stout Scholar (*Association for Environmental and Engineering Geologists*)   2016
- Roy L. Ingram Field Camp Scholar (*UNC*)   2015

LICENSES &
CERTIFICATIONS

- TN Geologist-in-Training
- TN Qualified Hydrologic Professional In-Training
- Rosgen Level I