

Caner Ferhatoglu

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Research Profile: <https://www.agron.iastate.edu/people/caner-ferhatoglu-0>

EDUCATION

Iowa State University, Ames, Iowa

Expected Aug 2023

Major: Doctor of Philosophy in Soil Science (Digital Soil Mapping)

GPA 3.75/4.0

- Conduct digital soil mapping research of soil fertility properties for ten fields in ISU farm
- Learn principles of digital soil mapping
- Learn more about different satellite and aerial imagery
- Create fertilizer and liming prescription maps for variable rate technologies
- Relevant Coursework: GIS
 - ❖ Python for GIS
 - ❖ Introduction to R
 - ❖ Precision Agriculture

North Carolina State University, Raleigh, North Carolina

Aug 2019

Major: Masters in Soil Science and GIS analyst certificate given by Center for Geospatial Analytics

GPA 3.62/4.0

- Learnt the fundamentals of management zones and prescription maps
- Developed Geographic Information Systems skills through GIS and Geostatistics curriculum
- Created a framework for delineating management zones for managing nutrients and lime
- Relevant Coursework:
 - ❖ GIS
 - ❖ Soils and Plant Growth
 - ❖ Geostatistics
 - ❖ Remote Sensing
 - ❖ Watershed Hydrology

University of Georgia, Athens, Georgia

May 2017

Intensive English Course for six months

- Improved the fundamentals of scientific writing and reading
- Practiced spoken English

Akdeniz University, Antalya, Turkey

Aug 2016

Intensive English Course for eight months

- Learnt the fundamentals of scientific writing and reading
- Obtained 6.5 overall in IELTS
- Practiced spoken English

Akdeniz University, Antalya, Turkey

May 2015

Major: Bachelor's degree in Soil Science and Plant Nutrition

GPA 3.91/4.0

- Honors: Valedictorian with summa cum laude
- Hands-on soil pedology trips
- Coursework including soil chemistry, physics, biology, genesis, mineralogy, geographic information systems, irrigation, field crops, plant pathology & physiology, greenhouse production, fruit crops, pests, and fertilizers

WORK EXPERIENCE

Graduate Researcher, Ames, Iowa

Aug 2019 - Present

Geospatial Laboratory for Soil Informatics

- Conducting a digital soil mapping project for variable rate technologies
- Conduct particle size analysis using state-of-the-art laser diffraction

Teaching Assistant, Ames, Iowa

Aug 2020 - Present

Teaching AGRON 354L Section 3

- Teaching soil lab analyses to 19 students in a traditional classroom setup (Fall 2020)
- Learning the principals of soil lab analyses
- Using CANVAS student platform to create assignments, quizzes, grade

SoilMetrix, Ames, Iowa <i>Geospatial Laboratory for Soil Informatics</i>	<i>Aug 2019 – Aug 2020</i>
<ul style="list-style-type: none"> • Funded by a venture company based in Raleigh, NC • Conducted a digital soil mapping project during the 1st year of PhD • Worked with a data scientist and built several python scripts facilitating the mapping procedure 	
Tutor, Raleigh, North Carolina <i>Helping student athletes</i>	<i>May 2018 – Dec 2018</i>
<ul style="list-style-type: none"> • In the topics including general chemistry, statistics, and math • Learnt how to better communicate with undergraduates 	
Cashier, Raleigh, North Carolina <i>Wolfpack Outfitters at Student Union, NC State University</i>	<i>June 2018 – Dec 2018</i>
Intern, Antalya, Turkey <i>Worked at a fertilizer dealer</i>	<i>June 2013 – Aug 2013</i>
<ul style="list-style-type: none"> • Learnt how to make prescription recommendations for greenhouse vegetable farming • Improved communication with farmers 	

LEADERSHIP AND EXTRA CURRICULAR ACTIVITIES

President, Agronomy Graduate Student Club, Ames, Iowa <i>Agronomy Department, Iowa State University</i>	<i>Dec 2020 - Present</i>
<ul style="list-style-type: none"> • Manage the graduate student club 	
Seminar Chair, Agronomy Graduate Student Club, Ames, Iowa <i>Agronomy Department, Iowa State University</i>	<i>Dec 2019 – Dec 2020</i>
<ul style="list-style-type: none"> • Define potential speakers • Work with faculty advisors and head of the agronomy department to determine speakers • Moderate virtual seminars • Record seminar videos 	
Social Chair, Crop and Soil Science Graduate Student Club, Raleigh, North Carolina <i>Crop and Soil Science Department, North Carolina State University</i>	<i>Aug 2018 – May 2019</i>
<ul style="list-style-type: none"> • Arranged social events for graduate students • Helped with graduate seminars 	
Membership, Ames, Iowa <i>Iowa State University Chess Club</i>	<i>Oct 2019 - Present</i>
Membership, Ames, Iowa <i>Iowa State University Tennis Club</i>	<i>Aug 2020 - Present</i>

SCHOLARSHIPS & AWARDS

Eugene J. Kamprath Soil Science Scholarship Award <i>Crop and Soil Science Department at North Carolina State University, Raleigh</i>	<i>Jan 2019</i>
Poster Presentation Award for 2nd Place, Annual Meeting of the Soil Science Society of North Carolina <i>North Carolina State University, Raleigh</i>	<i>Jan 2019</i>
Full Scholarship for Master`s Degree from The Ministry of Education of Turkish Government <i>Ankara, Turkey</i>	<i>June 2015</i>

SOFTWARE PROFICIENCIES

Research-Specific Software	<ul style="list-style-type: none"> • ArcMap, ArcGIS Pro, QGIS, ERDAS Imagine, SMS Agleader
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- ❖ Visualize and process geographic data
- ❖ Create maps at various geographic scales
- ❖ Work with spatial analyst toolbox
- ❖ Model builder & iterators

- Programming: Python, Spyder, Jupyter, Rstudio & Markdown, html, JavaScript for Google Earth Engine, MS Excel coding

- ❖ Raster and vector data manipulation
- ❖ Python libraries for GIS (arcpy, gdal, geopandas, numpy, os etc.)
- ❖ Google earth engine (GEE) for mass downloads of any type of remote sensing data
- ❖ Using GEE library from python spyder
- ❖ Working with excel sheets in R and Python
- ❖ Writing excel codes for auto calculations
- ❖ Atmospheric correction of sentinel-2 L1C level images

- Machine & Deep Learning

- ❖ Python libraries: sklearn, keras and tensorflow
- ❖ Rstudio libraries: Caret

Task Management

- Basecamp3
- Slack
- MS Excel
- Tappsk

Web-Based Databases

- Web Soil Survey
- Stack Overflow
- Github
- USGS EarthExplorer
- Google Earth Engine
- Planet Imagery