

# Kalkidan Fekadu Chefira

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New Haven, CT 06511

## SKILLS

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- Programming language: Python, C/C++, Java, R, Javascript
- Operating Systems: Linux, Mac OS X
- Software: ArcGIS Pro
- Databases: MongoDB, MySQL, PostgreSQL
- ML Frameworks: Pytorch, TensorFlow
- ML Models: SVM, CNN, RNN
- Framework and Tools: Git/Github, Hadoop, Spark, Jupyter Notebook, Docker, Vue.js
- Programming Libraries: Earth Engine, Descartes, GDAL, Pandas, RNN

## EXPERIENCE

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- Postgraduate Associate**, Yale University, New Haven, CT 01/2021 - Present
- Created a dynamic Earth Engine web app that visualized biodiversity layers and helped catch errors early on; the app was showcased to key stakeholders in the North America 30x30 conservation planning
  - Implemented backend workflow and unit testing for a platform that reduces complex species occurrence data and environmental layers analysis using Earth Engine and Descartes Lab libraries in Python and Javascript
  - Cleaned and visualized half a million species movement data points on a map using R to create a diagram for an academic publication
  - Web scraped and analyzed 25 GB of data from online databases in an automatic way using Python
- Software Engineer**, iCog Labs, Addis Ababa, Ethiopia 09/2019 - 12/2020
- Designed and implemented backend using flask, PostgresGIS, and Docker for a platform that gives GPS coordinate-based recommendations on best land management practices
  - Conducted research and presented project proposals on cost-effective satellite imagery-based solutions to aid the agriculture sector in Ethiopia for clients from international research and development organizations(CIAT and ILRI)
  - Trained logistic regression and image recognition CNN models using PyTorch and TensorFlow
- Learning Assistant**, New York University, Shanghai, China 01/2019 - 04/2019
- Provided tutoring for students taking Computer Networks course, and led lab and recitation class
- Programming Intern**, iCog Labs, Addis Ababa, Ethiopia 06/2018 - 08/2018
- Developed backend and frontend for web application with Restful API, Node js, Express js, MongoDB, and other npm libraries
  - Wrote unit tests to check the effective performance of atomic operations within the Docker API configuration pipeline
- ## EDUCATION
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- Fellow**, Data Science for All 10/2021 - Present
- Selected to participate in a rigorous 17-week data science program focused on building skills in data structuring, manipulation, and scientific analysis culminating in a capstone project
- MS, Advanced Computing**, Tsinghua University 09/2020 - 06/2022
- Relevant Courseworks: Big Data, Deep Learning, Distributed Systems, Combinatorics
- BS, Computer Science**, New York University 09/2015 - 05/2019
- Relevant Courseworks: Algorithms, Machine Learning, Databases, Software Engineering