Samuel Smock

CONTACT

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COMPUTER SKILLS

- ArcGIS



- Javascript



- 3D Modeling



- HTML/CSS



- Python



- Photoshop



- SQL Spatialite



- PowerBI



LANGUAGES

- English

- Spanish



- German



C1

Student of sustainability with a broad, interdisciplinary approach to achieving environmental goals. I am resourceful, curious and quick to pick up new skills or learn new software to solve problems. Particular areas of interest are research and policy around geothermal and solar thermal renewable energy sources and their use in conjunction with heat pumps for heating and cooling.

EDUCATION

Expected Spring 2023 Universität Leipzig

M.Sc. in Sustainable Development,

Leipzig, Saxony, Germany

05/2012

Columbia University

B.S. in Applied Physics, Cum Laude

New York, New York, USA

RELEVANT COURSEWORK

- Renewable Energy Sources, Ca' Foscari University 2022

- Geographic Information Systems, Ca' Foscari University 2022

- Integrated Assessment of Climate Protection - Systems Science and Sustainability, Strategies, Universität Leipzig 2021

- Analyzing Data With Python, Codecademy 2019

- GIS for Resource and Infrastructure Management, Columbia University 2012

- Field Methods for Environmental Engineering, - Introduction to Atmospheric Science, Columbia University 2012

- Environmental and Climate Economics, Ca' Foscari University 2022

- Development Economics Universität Leipzig 2021

Universität Leipzig Winter 2021

- Physics of Solar Energy, Columbia University 2011

- Fluid Mechanics (Graduate Level) Columbia University 2011

Columbia University 2010

SELECT PROFESSIONAL EXPERIENCE

05/2017 -09/2021

Owner, Rebuild Greener! New Orleans, Louisiana USA

Planned and carried out whole-home renovations and new "tiny" home construction with a focus on energy efficiency and green building practices

Worked closely with local and state governments on project permitting, zoning, code compliance, and tax incentives

Assembled project proposals including basic 3-D models and construction plans to submit to the municipal safety and permitting office

RESEARCH AND ACADEMIC COMPETENCIES - Deep mathematical background	02/2020 - 09/2021	 Freelance Web Developer New Orleans, Louisiana USA Designed and built a number of reactive and eye catching websites for local small businesses primarily using the React Javascript library Maintained and updated online stores using cloud-based development environments
Skilled in data acquisitionLiterature review expertiseSkilled technical writer	11/2016 - 06/2019	 Operations Manager, Parleaux Beer Lab New Orleans, Louisiana USA Built a 10bbl brewery from the ground up including tasks in plumbing, wiring, carpentry, and overall process design Installed and maintained a glycol heat pump and chilling system Oversaw a small team coordinating production schedule, graphic design, quality assurance and regulatory compliance
 "SOFT" SKILLS Strong time management and organizational Skills Respectful and kind in the face of disagreement 	09/2013- 01/2014	 Biological Field Technician, Grasslands Consulting Golden, Colorado USA Insured regulatory compliance with the Endangered Species Act at hydraulic fracturing sites in Utah's Uinta Basin Planned field sweeps to map locations of endangered cacti using Esri's ArcPad
 Works well in small teams and courteous of others' time Eye for graphic design and keen sense for detail 	07/2012 01/2013	 Geodata Analyst, DAAD Rise Professional with Beak Consultants Freiberg, Sachsen, Germany Prepared data from local and online sources using ArcMap and ArcCatalog Predicted resource abundance, erosion, and natural disasters using the iterative machine-learning GIS plugin, Advangeo Translated contract bids from English to Spanish
OTHER INTERESTS - Passionate DIYer with a	11/2011- 05/2012	Research Assistant, Columbia Lab for Unconventional Electronics New York, New York, USA Developed and built a thin film Ni-Li battery for use in wearable

solar cells

chip

- Passionate DIYer with a love for natural building practices and off-grid living
- Multi-instrumentalist musician and digital music producer
- Long distance bike touring and bike mechanics

PUBLICATION

Hannah K. Ross, John Cooney, Megan Hinzman, **Samuel Smock**, Gary Sellhorst, Ralph Dlugi, Nicole Mölders, Gerhard Kramm. (2014). Wind Power Potential in Interior Alaska from a Micrometeorological Perspective. *Atmospheric and Climate Sciences*, 4, 100-121. doi:10.4236/acs.2014.41013

Programed a battery testing routine using Python and an Arduino