

Andrew Ingalls

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WORK EXPERIENCE

Associate Scientist II

Stowers Institute for Medical Research

Kansas City, MO

July 2018 - Present

Creating Business Value and Cutting Costs through Programming and Data

- Reduced employee workload by 100+ hours per year through the creation of an automated time series reporting tool using Python, Linux, Postgresql, and PowerBi
- Developed an elution method for analyzing stress using waterborne cortisol and polynomial regression modeling
- Created a PowerBI dashboard to track daily breeding data which resulted in a facility-wide fecundity improvement of 215%
- Reduced employee report crafting by 60+ hours per year by developing modular queries in SQL
- Decreased lab specimen feeding costs by ~40% using polynomial regression modeling of baseline characteristics with scikit-learn
- Improved water quality procedures through descriptive analysis of historic data, reducing employee workload by 300+ hours

Setting People and Community up for Success with Process Improvement and Documentation

- Managed daily operation of facility and projects through scrum and agile methodology
- Facilitated cross-functionally between labs and core science departments to enhance research objectives and outcomes
- Spearheaded an overhaul of the training system and created over 50 new training documents, which resulted in a direct increase in training opportunities and mentorship for 7 employees
- Used Microsoft PowerApps to facilitate breeding requests and protocol tracking for lab members
- Co-authored 3 scientific books focused on model organism research

Chief Operations Officer & Chief Research Officer

Trifecta Ecosystems, Inc.

Meriden, CT

June 2016 - 2018

- Oversaw finances, inventory, and company projections, including allocation of over \$250,000 in annual operating costs for an 8,400 sqft. facility
- Managed 4 employees in the operations of a 4,000 sqft. indoor farm and R&D of core products
- Secured \$500,000 in first-round investment from Connecticut Regional Water Authority
- Engineered 25+ recirculating aquaponics systems including a 3,000 sqft. facility worth over \$150,000
- Created in-situ sensor suite to provide real time monitoring and time-series analysis of water quality
- Negotiated a partnership to rear *Ictalurus punctatus* fry for the facility, reducing supply cost by 80%

Environmental Geologist

Golder Associates, Inc.

Manchester, NH

November 2014 - 2016

- Managed 1-5 field teams of five employees to ensure client goals and timelines were achieved for water quality sampling and analysis

Graduate Teaching Assistant

Kansas State University

Manhattan, KS

June 2013 - 2014

- Taught 4 physics modules, each 3-4 weeks long, to a class of 30 high-school students
- Mentored a class of 30 high-school students weekly in STEM-related career paths

PROJECTS

[Dungeons & Dragons Monster Stat Block Generator](#)

- Scraped over 300 monster data entries using Selenium; wrangled complex data features
- Trained and deployed Sequential neural network with 85% accuracy using Keras to generate a balanced monster stat block for inexperienced DMs
- *Technologies Used:* Python, Selenium, Pandas, Numpy, Wordcloud, Scikit-learn, Tensorflow, Dash, Docker, AWS

TECHNICAL SKILLS & PROFICIENCIES

Programming: Python (Numpy, Pandas, Scikit-learn, Tensorflow, Dash, Matplotlib, Seaborn, Plotly, BeautifulSoup, Selenium), R Programming (tidyverse, plotly, knitr), SQL (MySQL, PostgreSQL), HTML, CSS, Linux, Git

Other Technologies: PowerBI, AWS

Statistics: A/B Testing, Hypothesis Testing, Regression, Descriptive

EDUCATION

Master of Science, Geology, *Kansas State University*, 2014

Bachelor of Science, Environmental Science, *Northeastern University*, 2012

CERTIFICATIONS

R Programming A-Z, *Udemy*, 2019

Advanced R Programming, *Udemy*, 2022

IBM Data Science Professional Certificate, *Coursera*, 2022

Intro to Linux, *Stowers Institute*, 2022