Johan Yapo

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Summary

- Cross-functional collaborator with experience in data modeling and evaluation, feature engineering, material informatics, decision trees, random forests, data mining, data sanitization, hyperparameter tuning, recursive feature elimination with cross-fold validation, and data visualization, as evidenced by 7 peer-reviewed presentations including 1 at the American Chemical Society.
- Strong research capabilities and analytical skills in solid-state inorganic and computational chemistry, leveraging expertise in computational methods and materials characterization techniques to solve complex scientific problems, resulting in 3 publications including a publication in ACS Materials Letters journal.
- Exceptional leadership and interpersonal skills, showcased as a DEI practitioner, collaborating effectively with diverse teams to enhance STEM accessibility, utilizing indepth knowledge of inclusive practices and cultural competence to foster an equitable research environment.

Work Experience

Graduate Student Researcher

September 2019 to December 2024

UCR

- The ability to execute tasks related to the Cheminformatics Scientist role at BioSpace with 5 years of scientific experience in data sciences field relevant to software engineering with strong skills gained with experience in data modeling and evaluation, linux environment management, feature engineering, cheminformatics, XGBoost, random forests, searching large chemical spaces, and data analysis, as evidenced by 7 peer-reviewed presentations including 1 at the American Chemical Society on using machine learning to predict novel magnetic materials.
- Cross-functional collaboration skill relevant for working in the medicinal chemistry and drug discovery fields with 5 years of experience collaborating with chemical engineering and materials science colleagues through the use quantum chemistry computational methods such as DFT to analyze the catalytic properties of transition metal borides as hydrogen evolution reaction catalysts for clean energy development resulting in 3 publications including a publication in ACS Materials Letters journal.
- The ability to execute tasks related medicinal chemistry, software engineering, drug discovery fields along with bioinformatics workflows. Strong skills in linux environment gained with experience in Python, Java, and Bash programming. 5 years of experience

in cheminformatics and data-mining through the use of MatMiner and Pymatgen webbased tools relevant for bioinformatics workflows for chemistry applications and materials science applications as evidenced by 7 peer-reviewed presentations and 1 fellowship position including 1 at the American Chemical Society on using machine learning to predict novel magnetic materials relevant.

Teaching Assistant at General Chemistry Lab and Discussion September 2020 to August 2024 UCR

- Effective teaching and curriculum development abilities by creating a tailored lesson plans, lectures, and in-class activities for general chemistry courses for primarily firstgeneration college students and utilizing inclusive pedagogical practices to foster a positive learning environment in undergraduate chemistry labs.
- Exceptional leadership and interpersonal skills, showcased as a DEI practitioner, collaborating effectively with diverse teams to enhance STEM accessibility, utilizing indepth knowledge of inclusive practices and cultural competence to foster an equitable research environment.
- Developed and implemented inclusive pedagogical practices, including designing a rubric which outlines key actions instructors should practice in their classrooms with the goal of enhancing STEM education and ensure equitable access and participation in intro-level STEM laboratory courses, resulting in improved student engagement and achievement.

Course Developer and Instructor

January 2024 to June 2024

Office of Diversity, Equity, and Inclusion (DEI), UCR

- Exceptional leadership and interpersonal skills, showcased as a DEI practitioner, collaborating effectively with diverse teams to enhance STEM accessibility, utilizing indepth knowledge of inclusive practices and cultural competence to foster an equitable research environment.
- Ability to work as a team player in a cross functional team with colleagues from the school of education and office of DEI to develop the curriculum and content of a new online DEI course for international graduate students.
- Developed strong communication skills to teach and lecture crucial DEI practices to students with minimal experience in the field.

Quality Control Technician II

June 2017 to August 2019

Chemtool Incorporated, IL

- Strong analytical skills relevant for working in the data sciences field with 2 years of experience by performing a variety of quantitative and qualitative tests on finished grease and fluid lubricant products, leveraging expertise in testing methodologies for lubricant quality assessment as evidenced by 1 optimized methodology including Calibration of an industry-grade X-ray Fluorescence Spectrometer.
- Exceptional technical proficiency complemented by calibrating sensitivity curves and maintaining X-ray fluorescence instruments, utilizing in-depth knowledge of elemental composition analysis techniques specific to grease products, resulting in 6 experiments that led to discoveries.
- Experience in leadership, management, and being a team player, performing up to 30 different chemical and mechanical testing protocols on grease and lubricants in a fast-paced environment with minimal supervision.

Education

PhD in Physical Chemistry

September 2019 to Present

University of California Riverside

BSc. in Specialized Chemistry

September 2016 to September 2019

University of Illinois Urbana-Champaign

Skills List

Collaboration Skills

Data Analysis

Feature Engineering

Matminer, Pymatgen

Random Forests

Stakeholder Management

xgboost

Computational Chemistry

DEI practitioner

Inclusive Work
Environment

Project Management

Skills

Responsible A.I., Machine Learning

Scientist

Team Coordination

Cross Functional Communication

Density Functional

Theory

Material Informatics

Python, Bash

Solid State Chemistry,

Data Scientist

Technical Writing

Affiliations & Hobbies

- Alliances for Graduate Education and the Professoriate (AGEP) NSF Funding Award
- Advancing Faculty Diversity Award, UCR Department of Chemistry
- The Chancellor's "Making Excellence Inclusive" Diversity Certificate Program, UCR
- Former ACS student member, American Chemical Society (ACS)
- Sankofa Mentorship Program Graduate Student Mentor, UCR
- UAW 2865 member and student organizer, United Automobile Workers (UAW)
- UIUC President's Award Program
- USTA Tennis On Campus Riverside League Member, United States Tennis Association
- Backpacking, tennis, cooking & baking, Hiking, yoga, music enthusiast