

Samuel Hart Kettlewell-Sites

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Education

College: James Madison University | ABET - Accredited

Expected Graduation: May 2021

Major: B.S. Integrated Science and Technology

- **Concentration:** Information Knowledge Management (Machine learning)
- **Minor:** Computer Science

Cumulative GPA: 3.44 | **Major GPA:** 3.52

President's List: Spring 2021 **Dean's List:** Spring 2018, Fall 2018, Spring 2019 & Spring 2020

Technical Skills

Programming Languages: Java, Python, C#, HTML5, JavaScript, React, CSS, TensorFlow, AWS, Practice in Full Stack Development, SQLite and PostgreSQL, MongoDB

Programming related skills: SCRUM/Agile development, AWS, Salesforce

Problem-Solving: Experience in holistic problem solving using software such as Vensim and Stella Architect to model and understand complex problems.

Projects and Classes

Senior Capstone: A 2-year project that uses Python code to model traffic patterns and congestion in cities and uses evolutionary machine learning to train traffic lights to optimally and dynamically change in order to produce more efficient traffic patterns. This data is stored in a database and then used later to create visual 3D models of the simulations.

CS 345 Software Engineering: A collaborative team-based class focusing on a multi-week project to create a Munsell color program using Java, with an emphasis on using SCRUM-based techniques to promote good coding practices.

CS 374 Database Systems: A class focusing on relational databases, culminating in the creation of a PostgreSQL database housing JMU course catalog information that could be accessed through a front end webpage.

ISAT 480 Machine Learning & Big Data: Using Scikit-learn and TensorFlow with Keras to discover and visualize patterns and information from large data sets.

Activities

James Madison Club Swimming

- **President** for the academic year of 2020-2021.
- **Vice President** for the academic year of 2019-2020.
- **Secretary** for the academic year of 2018-2019.
- Top 2 male at College Club Swimming Nationals.

Coaching – Southampton Recreation Association of Richmond, Virginia

- Coached participants, developed practices & managed administrative tasks for swimmers aged 4-18 through daily practices, private lessons and weekly meets. (Summer 2016 – Summer 2019)

Golf