J. Alexander Messina

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EDUCATION

University of Missouri   Graduated July 2015
Master of Education - Learning, Teaching and Curriculum

Marshall University Forensic Science Program   Graduated May 2012
Master of Science in Forensic Sciences
Emphasis in Digital Forensics, Forensic Chemistry, and Crime Scene Investigation

University of Missouri   Graduated May 2010
Bachelor of Science in Biology
Minors: Business & Psychology
Biological Science Departmental Honors, Latin Honors, & University Honors

PROGRAMMING PROFESSIONAL DEVELOPMENT AND CERTIFICATIONS

Chancellors Certificate in Programming - University of Missouri, *June 2022*
- Focuses in Java Programing and Python Programming

PLTW Computer Science Principles (Python) Training - PLTW Virtual Master Teachers, *July 2020*
PLTW Computer Science A (Java) Training - PLTW Master Teachers, *June 2019*

PROGRAMING PROJECTS (HTTPS://GITHUB.COM/EXECUTORKARTHAN)

Academic Intervention Period (AIP) Manager - Primary Author, *written in Google Apps Scripts (Javascript)*
- Designed scripts to enhance the Google Sheets (request sheets) that we use to coordinate where students go during our AIP
    - Eliminated the need for paper travel passes across the school
    - Ensured sheet accuracy by automating student data updates as enrollment changes
    - Standardize request sheet formatting for better readability and ease of use
- Implemented peer-requested features such as:
    - Clarified where students needed to go by highlighting the names of traveling students
    - Reduced student data update lag from once every 2 weeks to once daily
    - Reduced time required to create accurate request sheets through automation
    - Created an automated tool for teachers to add students to request sheets
- Adjusted features per peer feedback for an enhanced user experience

Esports Tryout Data Processor - Primary Author, *written in Google Apps Scripts (Javascript)*
- Rates players based on Google Form reported statistics
    - Allowed for data driven decisions to be made regarding a player's role in the team
    - Provided a way to quantify positive traits that are typically qualitative, such as:
        - Level of communication
        - Level of fun to play with
        - Level of teamwork

Stock Data Collector (Passion Project) - Primary Author, *written in Python, SQL*
- Collects stock tickers from the New York Stock Exchange's website via Selenium
- Compiles and processes financial data for dividend paying stocks
- Stores all stock tickers and processed data in a SQL database

HONORS

EAGLE SCOUT
GRADUATED WITH BIOLOGICAL DEPARTMENTAL HONORS
GRADUATED WITH LATIN HONORS
MICROSOFT TECHNOLOGY EDUCATION AND LEARNING SUPPORT (TEALS) ALUMNI

PUBLICATIONS

Messina JA, St. Paula, Hargis S, Thompson WE and McClellan AD (2017) *Elimination of Left-Right Reciprocal Coupling in the Adult Lamprey Spinal Cord Abolishes the Generation of Locomotor Activity*. Frontiers Neural Circuits. 11:89. DOI: 10.3389/FNCIR.2017.0089

Andrew D. McClellan, Timothee Pale, J. Alex Messina, Scott Buso, and Ahmad Shebib (July/August 2016) *Similarities and Differences For Swimming in Larval and Adult Lampreys.* Physiological and Biochemical Zoology. No. 4: 294-312

McClellan, A. D., Messina, J. A., St. Paul, A., and Hargis, S. (2015) *Test of the Half-Center Hypothesis For Generation of Locomotor Activity in the Adult Lamprey Spinal Cord.* Society for Neuroscience. 40:421.18

WORK EXPERIENCE

Science Teacher　　　　　　　　St. Charles School District　　　　　　　　St. Charles, MO
August *2018 – Present*
- Plan and lead courses, including:
    - Advanced Placement Computer Science A covering:
        - Fundamentals of Java and Class Design
        - Fundamentals of Object-Oriented Programing
        - Recursion
    - Advanced Placement Computer Science Principles in Python covering:
        - Fundamentals of Python
        - Fundamentals of data transmission and security
        - Basic algorithms and data processing
    - Advanced Placement Chemistry
    - Honors and General Chemistry
- Collaboratively design curriculum and instructional materials
- Support student success with parent outreach

Esports Head Coach　　　　　　　St. Charles School District　　　　　　　　St. Charles, MO
August *2021 – Present*
- Plan and lead practices, including:
    - Emotion growth and stability
    - VOD reviews of gameplay footage
    - Map analysis
    - Team composition analysis
    - Tactic and Strategy testing
- Foster a positive, safe and competitive culture
- Support student success with parent outreach
- Coordinate off-site activities, including inter-school and collegiate visits

Biology Teacher　　　　　　　　Rockwood School District　　　　　　　　Fenton, MO
August *2017 – 2018*
- Plan and lead courses, including:
    - General Biology
    - Honors Biology
    - Applied Biochemistry
- Prepare students for the Biology End of Course Examination
- Create instructional materials to assist and assess students
- Support student success with parent outreach

Biology Teacher　　　　　　　　Salem R-80 School District　　　　　　　　Salem, MO
August *2015 – 2017*