

Alex Messina

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With a strong background in JavaScript, React, and relational databases, I am well-prepared to contribute as an Full Stack Developer. My experience spans full-stack development, API integration, and deploying applications in collaborative environments. I have worked in team settings where effective communication and cross-functional collaboration are key, making me a strong fit for enterprise-level projects. My hands-on experience with front-end design and backend server integration, along with my work on projects like Bee-Porter and Worth the Watch, aligns with the role's requirements and expectations. I am eager to bring my skills to your team and contribute to innovative solutions. Additional skills include:

- **PROGRAMMING LANGUAGES:** JAVASCRIPT, JAVA, PYTHON, TYPESCRIPT
- **ARCHITECTURES:** REST, MERN
- **WEB TECHNOLOGIES:** HTML, CSS, BOOTSTRAP, JQUERY, NODE, EXPRESS, HANDLEBARS, REACT, WEBPACK, KONVA
- **VERSION CONTROL:** GIT
- **TOOLS:** GIT, API INTEGRATION, MYSQL, MONGOOSE, NODE.JS, GRAPHQL, EXPRESS
- **DESIGN:** FRONT-END DESIGN, BACKEND SERVER INTEGRATION

EDUCATION & CERTIFICATIONS

Certificate of Completion - Coding Boot Camp Washington University - St. Louis	2024
Certified Scrum Master Scrum Alliance	2023
Chancellors Certificate in Java & Python Programming University of Missouri - St. Louis	2023
Java Certificate of Completion PLTW Master Teachers	2020
Master of Education - Learning, Teaching and Curriculum University of Missouri - Columbia	2015
Master of Science in Forensic Sciences Marshall University	2012
Bachelor of Science in Biology University of Missouri - Columbia	2010

PERSONAL PROJECTS

- **MEDICAL IMAGING SIMULATION** -[HTTPS://MEDICAL-IMAGING-SIMULATOR.NETLIFY.APP/](https://medical-imaging-simulator.netlify.app/)
 - Summary: Mobile responsive app that simulates how a medical imaging machine collects photons from a radiotracer and creates an image from the tracer signal. This app lets users adjust collimator depth, width and radiotracer dosage to observe their effects on image quality.
 - Role: Author
 - Tools: TypeScript, CSS, Ant-Design, Konva, Vite, React
- **BEE-PORTER** -[HTTPS://GITHUB.COM/EXECUTORKARTHAN/BEE-PORTER](https://github.com/EXECUTORKARTHAN/BEE-PORTER)
 - Summary: Mobile responsive app that allows users to create accounts and drop pins, notifying logging in users as to the locations of bee swarms

- Role: Co-Author
- Tools: Javascript, Mongoose, CSS, Bootstrap, Express, Vite, Render, Bcrypt, React, Apollo/GraphQL, Mapbox API, JWT, Stripe

WORTH THE WATCH? - <https://github.com/EXECUTORKARTHAN/WORTH-THE-WATCH>

- Summary: Mobile responsive app that allows users to view, create and comment on movie reviews
- Role: Co-Author
- Tools: Javascript, CSS, Bootstrap, Express, Dotenv, Handlebars, Sequelize, MySQL2, Bcrypt, Sessions

SQL EMPLOYEE MANAGER - <https://github.com/EXECUTORKARTHAN/SQL-EMPLOYEE-MANAGER>

- Summary: Command line app to manage a fictional company's SQL employee database
- Role: Sole Author
- Tools: Javascript, HTML, CSS, MySQL, Inquirer, Dotenv, Sequelize

PROFESSIONAL EXPERIENCE

Teacher Researcher	June 2024 – August 2024
Washington University	St. Louis, MO
<ul style="list-style-type: none"> • Built virtual interactive simulation to support student learning the fundamentals of medical imaging. • Constructed a doll model to illustrate radiotracer injection and photon emission. • Authored companion lessons for students to explore medical imaging concepts 	
Science Teacher	August 2018 – Present
St. Charles High School	St. Charles, MO
<ul style="list-style-type: none"> • Supported students from a variety of backgrounds in multiple levels of chemistry and computer science coursework. • Developed a Google Apps Script that was adopted by the school to coordinate student flow from homeroom to other locations. • Helped guide and implement building-level decisions by serving on the Shared Leadership Committee. • Supported colleagues by hosting professional development presentations and book clubs. • Introduced a material science-based chemistry curriculum to promote student interest and success. • Prepared students so that 100% of testers passed the 2023 Advanced Placement Chemistry exam. • Coordinated with the Microsoft Technology Education and Learning Support (TEALS) program to provide an industry professional to support St. Charles' newly created computer science program. 	
Esports Head Coach	August 2021 – Present
St. Charles High School	St. Charles, MO
<ul style="list-style-type: none"> • Build and maintain a competitive esports team with a focus on developing student-athletes in a positive, accepting environment. • Created and managed the first-ever esports team in St. Charles School District History. • Organized the first live Esports tournament hosted by a public high school in St. Charles County. • Coached state-qualifying Smash Bros and Halo teams. 	
Biology Teacher	August 2017 – 2018
Rockwood High School	Fenton, MO
<ul style="list-style-type: none"> • Supported students from a variety of backgrounds in multiple levels of biology coursework. • Modeled a case-based teaching method to the Biology department. • Started a competitive chess club for interscholastic competition. 	
Biology Teacher	August 2015 – 2017
Salem R-80 High School	Salem, MO
<ul style="list-style-type: none"> • Supported students from a variety of backgrounds in multiple levels of biology coursework. • Provided a college level educational experience to over 100 students 	