

# Alex Messina

314-599-1732 | [me@alexmessina.dev](mailto:me@alexmessina.dev) | St. Peters, MO, 63376 | [Portfolio](#) | [LinkedIn](#) | [GitHub](#)

Highly motivated Jr Web Developer with a passion for building solid open-source projects. Excited to leverage my technical skills and experience to contribute to a mission of developing custom solutions and gaining cutting-edge experience in a dynamic industry. Earned a certificate in Full Stack Web Development from Washington University Coding Bootcamp. Collaborative problem-solver who is passionate about developing robust apps with intuitive user experiences. Strengths in solution-exploration, teamwork, and seeing projects from inception to live functionality. 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

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

## 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, And-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](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](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**

- 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**

- 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**

- 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**

- 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**

- Supported students from a variety of backgrounds in multiple levels of biology coursework.
- Provided a college level educational experience to over 100 students