Derek Otcasek

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Work Experience

Aptima Inc., Remote | **Software Engineer** | **January 2024–Present**

- Lead the development of new application features.
- Present and review technical work and collaborate between teams and divisions.
- Follow best practices and standards for the development of reusable components.

Aptima Inc., Remote | **Associate Software Engineer** | **–December 2023**

- Collaborate in teams using an agile and git workflow.
- Proactively seek feedback for software development tasks in partnership with leadership.
- Work directly with customers to rapidly implement features and fulfill software requirements.

University of Massachusetts, Boston, MA | **Software Developer** | **January 2019–December 2019**

- Develop AngularJS Web applications for the Library Systems and Discovery Services team.
- Analyze library website usage data by parsing log files and preparing data visualizations in Tableau.
- Create written documentation and test new features in sandbox and production environments.
- Manage administration of the AWS email notification server and interlibrary loan server.

Technical Skills

Programming Languages: TypeScript, JavaScript, Python, C#.

Development Tools: Angular, Angular Material, .Net, NodeJS, RxJs, NgRx, Docker, ChartJS, OpenCV, A-Frame, Three.js, Git, Keycloak, HTML, CSS, MQTT, Elasticsearch, Entity Framework, PostgreSQL.

Projects

Mission Report Generation and Flight Tracking

- Develop micro-frontends for module federation application using Angular elements.
- Automatically generate timeline events and display flight paths on Cesium map from input files.
- Communicate between micro-frontends via message bus and manage state and interactions via NgRx.
- Persist flight event CRUD operations between micro-frontends in centralized Elasticsearch Index.

AR/VR Content Repository

- Create front-end Angular Material UI components to organize and display assets from Axure designs.
- Add APIs to support uploads of additional document and media types.
- Add messaging and content sharing feature between users and organizations.

Human Agent Teaming

- Develop a testbed using Minecraft to measure the effectiveness of various AI agents.
- Create and deploy a Docker microservice for single-sign-on.
- Calculate and present measures on experimental data in real time via MQTT message bus and Python.
- Integrate a third party Qualtrics API to use survey data in our project.
- Update front end matchmaking area and interactive Minecraft map applications.

Education

University of Massachusetts Boston	Bachelor of Science, Computer Science, December 2019
Bunker Hill Community College	Associate of Science, Computer Science, 2017