

Jesse Ellin

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EDUCATION

Rensselaer Polytechnic Institute, Troy NY MS Computer Science Concentration in Applied Machine Learning	<i>May 2023</i>
Rensselaer Polytechnic Institute, Troy NY BS Computer Science and Cognitive Science Concentration in Machine Learning Theory and AI Ethics	<i>May 2022</i> <i>GPA: 3.53</i>

SKILLS

C#; TypeScript; .Net Core; React; Python; TensorFlow; PyTorch; C++; C; Git; SQL/T-SQL; HTML/CSS/JavaScript; Java; LaTeX; Ubuntu; Project ownership; UI/UX; Documentation

WORK EXPERIENCE

Data Engineer II, UW-Madison SMPH	December 2024 - Present
<ul style="list-style-type: none">Supported medical research scientists through data requests by designing and implementing ETL pipelines and feature engineeringOwned data request tickets from initial contact to IRB release authorizationDesigned, developed, and executed large-scale complex SQL queries on massive databases (>100TB) with a focus on performanceIntegrated multiple large-scale data returns using Python's pandas library integrated with Azure and RedcapOverhauled multiple internal reporting dashboards with an emphasis on accessibility, maintainability, and reusability	
Software Developer, Epic Systems	June 2023 - August 2024
<ul style="list-style-type: none">Owned multiple data-driven projects in a team-based environment from concept to publication, including leading design meetings across teams and rolesPerformed end-user research using surveys and direct outreach to gather important insights for large-scale projects that led to a significant decrease in click-away rate from key web pagesAdvised multiple teams on machine learning projects by recommending model development strategies, analysis methodologies, and code qualityDeveloped thorough unit testing across SQL, C#, React, and database environments that caught multiple show-stopper bugs before they hit publicationReceived multiple Epic Certifications and experience in multiple Epic-related data systems	
Assistant Data Specialist, SWCA Environmental Consultants (Part-Time, Full-Time in summer)	May 2021 - June 2023
<ul style="list-style-type: none">Designed a generalized AI object detection pipeline that was readily extensible across diverse project spacesDesigned and developed multiple AI NLG data-to-text synthesis and generative labeling projects, which optimized workflows for internal teams and minimized administrative overheadDeveloped an implementation of Microsoft's Biophony AI model to accurately identify Bachman's Sparrow calls as a proof-of-concept. Expanded the model's interface to be generalizableUpdated data labeling interfaces to accept and process audio inputs to generate filtered spectrograms for ML-driven audio labeling, making it easier for field researchers to identify important animal callsHelped develop a Progressive Web App to run deep AI network image object identification from drone footage, allowing field researchers to run AI-powered image inference in the field	
Director of Development, Guidance Analytics (Part-Time)	January 2021 - April 2022
<ul style="list-style-type: none">Developed and implemented best practices and compliance measures for the development team, which introduced AGILE methods into team workflowsDeveloped Lighthouse labeling service for client-facing data upload and professional labeling. This relied on full-stack development knowledge and UI/UX skills, providing a platform for large-revenue projects and increased publicityUpdated and documented existing AI code base, allowing for optimized performance and rapid updates	