

Antonio Lu

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EDUCATION

OREGON INSTITUTE OF TECHNOLOGY

Bachelor of Science in Software Engineering

3.82 GPA

2020 - 2024

SKILLS

Languages: C#, C++, TypeScript, JavaScript, Python, HTML/CSS

Technologies: React.js, Node.js, Flask, Blazor, ASP.NET MVC, SQL Server, MySQL, PostgreSQL, Entity Framework, Docker, AWS (Lambda, RDS, ECR, ECS, CloudWatch), Cloudflare, LINQ, Bootstrap, Chart.js, jQuery, Tailwind CSS, Postman

Spoken Languages: English and Chinese

EXPERIENCE

TRIMBLE

PORTLAND, OR

AI/ML Software Engineer Intern

May 2024 – Sep 2024

- Designed and implemented a full stack AI application, utilizing OpenAI's GPT-4 API, Python, SQL Server, and SQLAlchemy ORM to transform natural language queries into structured database queries. Enabled dynamic report generation and data insights without requiring SQL expertise from users
- Built a responsive web application with ReactJS, NodeJS, and Flask to serve as a conversational interface for the AI system. Users could input free form questions, receive instant data responses, and export results, thereby reducing reliance on technical teams for ad hoc reporting

MICROCHIP

GRESHAM, OR

Full Stack Software Engineer Intern

Mar 2022 – Nov 2023

- Primary developer of a C# ASP.NET MVC web application that empowered users to autonomously customize data entry forms and display templates, reducing turnaround time for frequent updates by 95% and eliminating dependency on developer interventions
- Partnered with stakeholders to decompose features into actionable tasks, provide time estimates, and prioritize deployments based on user impact. Established feedback loops using metrics to drive iterative improvements
- Applied coding standards and best practices through code reviews, wrote maintainable and extensible code with guidance, used debugging tools to proactively and reactively resolve issues, ensuring code quality and reliability
- Implemented RESTful APIs to enable seamless integration with internal systems, standardizing data exchange and reducing manual workflows

PROJECT

Portfolio

- Developed a nostalgic Windows 95 themed portfolio website using TypeScript, ReactJS, and Tailwind CSS, recreating authentic UI elements including draggable windows, desktop icons, and system style dialog boxes to showcase my experiences and projects
- Created a responsive layout with mobile first principles using Tailwind CSS's utility classes and custom breakpoints, ensuring seamless usability across devices from smartphones to 4K monitors while maintaining the retro aesthetic
- Integrated a cryptocurrency dashboard into the portfolio, allowing users to explore current and historical price data for major coins through interactive charts, with a Cloudflare Worker proxy abstracting API requests to CoinGecko

Ticket Tracker

- Developed a C# ETL pipeline that integrates the SeatGeek API to monitor ticket prices for over 500 concerts, extracting, transforming, and loading pricing data into an AWS RDS PostgreSQL database
- Utilized Docker and AWS ECR to containerize the application, and AWS Lambda to automate and streamline data retrieval process, ensuring real-time event pricing information every four hours
- Developed an aesthetically pleasing and intuitive dynamic web application with C# ASP.NET MVC
- Employed SOLID principles, Unit of Work pattern, MVC pattern, and Repository patterns to ensure scalability, maintainability, and code quality