

Riccardo Pirruccio

Software Engineer | Austin, TX | (281) 725-4925 | rickp1795@gmail.com
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TECHNICAL SKILLS

Front-End | JavaScript (ES5 and ES6), Python Tkinter, Streamlit, TypeScript, JQuery, AJAX, React, Redux, HTML5, CSS3, TailwindsCSS, Bootstrap, Material UI
Back-End | Node.js, Express, Python, PostgreSQL, MongoDB, MySQL, RESTful API, VBA
Testing/Deployment | Jest, Mocha, Chai, Jasmine, React Testing Library, Loader.io, K6, New Relic, AWS, Digital Ocean, Docker
Developer Tools | Vim, Git, npm, Webpack, Babel, Agile Methodology, Scrum, TDD, Trello, GitHub Actions, Unix/Linux, Bash, Jupyter Notebooks, Google Colab
Data Analysis | Python Pandas, NumPy, Tableau, Minitab, Excel

PROFESSIONAL EXPERIENCE

Applied Materials | Manufacturing Engineer | Austin, TX

08/2022 - Present

- Coordinated project management obsolescence of hundreds of ESWs, engaging closely with stakeholders including Material Buyers, Customer Reps, Suppliers, and Design Engineers to gather crucial insights. Leveraged this intelligence to judiciously adapt and optimize a Python codebase, automating and refining workflows, which aided in efficiently repurposing millions of dollars of inventory and closure of obsolescence projects. This approach allowed me to manage multiple obsolescence projects at once and provided a model for the 50+ member global team to similarly boost their efficiency.
- Developed and currently maintain a comprehensive Python codebase, serving as a multi-functional tool for ESW and ECR management across BUs. This versatile system not only automates critical project tasks but also features an advanced 'Where Used' BOM parsing module, specifically designed for end-of-life part management. It efficiently identifies, communicates, and orchestrates the transition of complex component hierarchies reporting to our products, aiding engineers in integrating replacements with accuracy and ease. This codebase stands as a central solution, addressing a broad spectrum of obsolescence management needs, enhancing operational efficiency and strategic decision-making.
- The Python codebase I engineered is encapsulated in a user-friendly GUI. Its use is projected to yield over 20,000 hours in labor savings for obsolescence projects, translating to an estimated cost saving of around a million dollars. Additionally, it incorporates a SQL database I optimized for enabling sub-second queries of system information. This feature adeptly aggregates dynamic data from thousands of rows across multiple Excel files, granting my team with instant, actionable insights about the systems we deliver to our customers. This capability has played a pivotal role in closing out ESWs and mitigating mid-project scope creep.

Austin LangChain | Open-source Contributor | https://github.com/colinmcmalara/austin_langchain

10/2023 - Present

- Educator and contributor to an Austin, TX group, dedicated to advancing and nurturing a vibrant community of LangChain Artificial Intelligence developers. Instrumental in driving knowledge-sharing, collaboration, and innovation among enthusiasts and professionals in the field.
- Authored comprehensive tutorials in Jupyter Notebooks and Markdown, hosted on GitHub, focusing on utilizing Streamlit for intuitive UI development in Python and leveraging Docker to ensure the reproducibility of LangChain AI projects across development teams.
- Engineered an application demonstrating the integration of Streamlit, Docker, and LangChain templates in developing a dynamic retrieval-augmented generation dashboard capable of querying information from documents in Google Drive folders to "chat with your files". This demonstrated the practicality of leveraging large language models for data analysis and reporting, setting a new standard for knowledge-driven decision-making in project management and business intelligence.
- Featured speaker at Techstrong.ai's "AI In Action" virtual event, highlighting the integration of Streamlit and LangChain for AI development, presenting and simplifying complex concepts for a diverse national community of AI developers.

Galvanize Inc | Software Engineer Resident | Austin, TX

01/2023 - 04/2023

- Served as a JavaScript mentor in an 8-month online program, covering 20+ full-stack JavaScript-based concepts, and consistently received positive feedback for debugging support, code assistance, and resolving Git version control issues, leading to improved student performance and problem-solving skills.
- Collaborated with over 80 students in junior and senior cohorts to debug SQL and NoSQL databases, optimize Docker container configurations, and ensure seamless deployment on Amazon Web Services, thereby improving code quality, application performance, and DevOps practices.
- Conducted 10+ personalized tutoring sessions and answered 100+ help desk tickets, covering backend and frontend development concepts such as RESTful API design, database management, server-side scripting, SEO optimization, state management, and testing React components.

Athena Manufacturing, LP | Manufacturing Engineer | Austin, TX

09/2019 - 04/2022

- Led project management for a semiconductor and aerospace equipment supplier faced with tight deadlines, resource constraints, and scope creep, steering projects from initiation to completion by employing strategic planning and cross-functional collaboration. Regularly coordinated with teams to address bottlenecks and manage scope changes, optimizing resources to meet customer deadlines, a testament to effective stakeholder communication.
- Tasked with a role pivotal to New Product Introduction (NPI), established efficient, cost-effective manufacturing processes from scratch; utilized insights from previous projects for meticulous workflow analysis and avoidance of common pitfalls, leading to targeted manufacturing protocols that accelerated production readiness.
- Integrated the use of SolidWorks and NX for crafting detailed GD&T focused 3D drawings of critical manufacturing tooling, while also overseeing material and special process procurement, as well as in house operation planning. This multi-pronged approach synchronized manufacturing integration with supplier coordination, resulting in a harmonized production and supply chain, pivotal for timely and quality product delivery.

Aerospace Techniques, Inc. | Manufacturing Engineer | Middletown, CT

09/2017 - 06/2019

- Developed specialized machining tools and quality control fixtures using Mastercam, and programmed wire EDM and milling machines; this specific tooling and programming expanded the shop's capabilities, enabling the successful execution of more complex projects or parts.
- Led team efforts to enhance manufacturing output and quality assurance, performing detailed root cause analyses and revamping fixtures and inspection gauges. These initiatives accelerated production cycles and refined bulk quality checks, driving process optimization and improving operational reliability.
- Confronted with elevated scrap rates in manufacturing, evaluated non-conforming parts and designed effective rework processes while concurrently writing and updating work instructions. These integrated actions led to a marked decrease in scrap rates and a sustainable boost in manufacturing efficiency.

EDUCATION

University Of Texas at Tyler | Bachelor of Science, Mechanical Engineering

08/2015 - 05/2017

Houston Community College | Associates in Science, Engineering Science

08/2013 - 05/2015

Hack Reactor | Certificate in Advanced Software Engineering

04/2022 - 01/2023

- 1000 hours of coding in JavaScript, React, Express, PostgreSQL, MongoDB, and MySQL in an Agile environment, including solo coding, pair programming, and team collaboration.