Garlen Chan

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Work Experience

Manufacturing Engineer, Analytics - Anduril Industries *June 2025 - Present*

- Leveraged AWSAthena SQL and Apache Superset to develop analytics for process capability analytics, establishing standardized schemas for statistical process control (SPC) and test analytics
- Utilized Palantir Foundry to implement dashboards that enabled business insights with standard manufacturing metrics (i.e. cycle time, nonconformances, serialized assembly tracking, process yield)
- Standardized and documented metric definitions to encourage data-driven manufacturing health tracking

Process Engineer - Intel Corporation *October 2023 - May 2025*

- Utilized Python, SQL, and PowerBI to automate data analysis for large-scale manufacturing datasets, promoting data-driven decisions and saving 23 engineering and manager hours/week
- Leveraged Python to develop applications and automate test analytics at various toolsets, resulting in 10 engineering hours/week in savings
- Reduced nonconformance and defect rates by ~80% week-over-week by authoring data-driven technical documentation for critical root-cause analysis (RCA) on the manufacturing floor
- Developed notifications system to alert engineers and production managers of factory transactions

Research and Teaching Assistant - UC Davis Food Processing Research Lab *June 2022 - June 2023*

- Developed data-driven lab experiments for Chemical Engineering Food Processing course
- Applied statistical and rheological analysis techniques to demonstrate food systems concepts to students
- Authored technical procedures and engineering memos for laboratory experiments

Projects

Bond-Debond Tool Data Analyzer *November 2024*

- Applied knowledge of Python libraries (Tkinter, Pandas, NumPy, Matplotlib) to develop single point-of-use Windows app for tool data analysis automation in user-friendly GUI
- Stripped rec files to csv and analyzed for statistical process data alongside graphing capability
- Resulted in ~5 hours of engineering time savings per week

Toolset PowerBI Data Dashboard *September 2024*

- Collaborated with cross-functional engineering teams to extract, transform, and load (ETL) data into PowerBI dashboards, proliferating data centralization
- Utilized daily by engineering teams to check tool status, promoting ad hoc data analysis for toolset during shift passdown
- Resulted in engineering time savings of ~23 hours per week

Skills

Programming: Python (Pandas, Numpy, Polars), SQL (SQLite, Microsoft SQL Server, IBM DB2, Oracle)
Data Analytics and Statistics: Power BI, JMP, Matplotlib, Tableau, Apache Superset, Seaborn
Other Tools and Skills: ReactJS, Node.js, PostgreSQL, Root Cause Analysis, Statistical Process Control

Education

University of California, Davis: Chemical Engineering, B.S. *September 2019- June 2023*