Andrew Cai

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Skills & Abilities

Languages & Databases: Python, SQL, R, Snowflake, MySQL, PostgreSQL, SQL Server, Oracle SQL
Data Analysis & Visualization: Tableau, Power BI, Excel, Exploratory Data Analysis, Dashboarding, Data Storytelling
Machine Learning & Statistics: Supervised/Unsupervised Learning, Statistical Modeling, A/B Testing, Hypothesis Testing, Natural Language Processing
Data Engineering & Development: ETL, Data Validation, Feature Engineering, Git/GitHub, VS Code, Google Colab
Business & Professional Skills: Stakeholder Communication, Cross-Functional Collaboration, Project Management

Career Experience

Data Science Intern | San Francisco International Airport | San Francisco, CA | July 2025 – Present
- Developed a passenger traffic forecasting model using XGBoost and pandas to predict hourly congestion across gates and terminals, deploying results to a Power BI dashboard that reduced manual reporting development time by 90% and improved staffing allocation decisions.
- Migrated legacy Cognos reports to Tableau, leveraging Snowflake as the central data warehouse to modernize airport reporting infrastructure.
- Designed and delivered Tableau and Power BI dashboards for vendor contract expirations, airside operational budgets, groundside transportation revenue, and TSA badging audits, leading end-to-end requirements gathering, stakeholder collaboration, user acceptance testing, and iterative performance improvements.

Data Science Intern | Northrop Grumman Corporation | Redondo Beach, CA | May 2025 – August 2025
- Built an NLP-based clustering tool to group quality issue reports, accelerating root cause identification and corrective action workflows.
- Designed an automated ETL pipeline pulling from SQL Server and multiple internal sources into Tableau, eliminating 2+ hours of daily manual reporting.
- Created a Python-based executable tool that standardized unstructured manufacturing inspection data into analysis-ready tables, saving weeks of manual data preparation per month.

Data Analyst Intern | AT&T Corporation | Bothell, WA | June 2024 – August 2024
- Automated and optimized financial spending reports using Python and SQL joins, reducing processing time by 300% and saving $10K+ in monthly operational costs.
- Built interactive Power BI dashboards integrating data from QuickBase, Excel, and Snowflake, enabling faster executive-level budget reviews.
- Partnered with finance and program teams to translate reporting requirements into scalable analytics solutions.

Program Management Analyst | Intel Corporation | Santa Clara, CA | March 2023 – March 2024
- Optimized SQL queries powering product monitoring dashboards, reducing refresh times by 99%, and partnered with data engineers to debug ETL pipelines and resolve data quality issues.
- Supported program leadership through real-time KPI tracking and reporting automation.

Microelectronic Packaging R&D Engineer | Intel Corporation | Hillsboro, OR | May 2022 – March 2024
- Automated large-scale equipment data processing pipelines using Python, delivering a critical operational project one month ahead of schedule.
- Built SQL-powered Power BI dashboards for manufacturing teams, enabling 50% more proactive issue detection and resolution.
- Partnered with process engineers to convert real-time shop floor data into actionable performance insights.

Education

Northeastern University | M.S. Data Science | GPA: 4.00 | December 2025

Case Western Reserve University | M.S. Materials Science & Engineering | GPA: 4.00 | August 2020