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Charles Wang
West Chester Univerity

Portfolio: portfolio.com
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EDUCATION

B.S Computer Science, *West Chester University | GPA: 3.85*   Aug 2024 — Present

SKILLS

Programming Languages	Python, Java, JavaScript
Data Analytics	SQL, Tableau, Power BI, Pandas
Cloud	AWS (EC2, S3, CloudFront), Apache APISIX, Docker
Web	FastAPI, Spring Boot, PostgreSql

PROJECTS

NFL Elo Dashboard
yourdomainhere.com

- Built a production-style NFL analytics platform that ingests season game results, computes week-by-week Elo ratings, and publishes a static dashboard and interactive charts.
- Implemented a SQLite-backed Data API (FastAPI) serving validated team/game endpoints and computed season summaries (PF/PA/PD) derived from raw game rows.
- Built an Analytics API (FastAPI) that computes weekly Elo ratings by fetching season games and team data from the data API, then serves leaderboard and team-level Elo endpoints to power the dashboard.
- Generated the frontend as a static site using Jinja2 (build-time data pulls from the Analytics API) and rendered Elo time-series visualizations in Chart.js with baseline and division-rival overlays.
- Deployed the system to AWS with containerized backend services on EC2 and the static site hosted on S3 and delivered over HTTPS via CloudFront; used APISIX to route `/api/*` and `/analytics/*` behind a single entrypoint.

Crime & Weather Visualization
yourdomainhere.com

- Developed a full-stack data analytics web application applying regression analysis to examine relationships between daily temperature and violent crime rates in New York City.
- Implemented an ETL pipeline ingesting time-series data from the National Weather Service and NYC crime datasets, performing schema normalization and cleaning prior to storage.
- Persisted integrated datasets into SQLite using JDBC to support efficient querying and downstream analysis.
- Architected a three-tier, containerized system separating frontend, backend services, and database layers, exposed through an Apache APISIX API gateway.
- Built an interactive JavaScript frontend allowing users to dynamically accss backend services to explore trends and adjust regression analysis across selectable date ranges.

Powerlifting Performance Regression Analysis
kaggle.com/code/charles633/statistical-patterns-in-competitive-powerlifting

- Conducted an exploratory statistical analysis on a large-scale powerlifting dataset (1M+ records) to examine performance differences across sex, bodyweight, and competition lifts.
- Applied Pearson correlation and linear regression to quantify relationships between bodyweight and squat, bench press, and deadlift performance.
- Created visualizations and summary tables to clearly communicate statistical findings in a Kaggle-hosted Jupyter Notebook.

EXPERIENCE

Bartender & Server   July 2019 — Aug 2023
Teca   *Newtown Square, PA*

Patient Transport Summer Volunteer   May 2013 — Present
Paoli Hospital   *Paoli, PA*