Daniel Wang

412-628-4603 | dalbertw@unc.edu | linkedin.com/in/daniel-wang23 | github.com/danielwang23 | daniel-wang23.com

Education

University of North Carolina at Chapel Hill Expected Graduation: May 2027

Bachelor of Science in Computer Science and Data Science, (GPA: 3.90/4.00) *Chapel Hill, NC*

- **Awards:** Honors Carolina Scholar, UNC Chancellor's Award Recipient (2025), Deans List (F23, S24, F24, S25)

Experience

Fidelity Investments June 2025 – Aug 2025

Full Stack Software Engineer Intern *Durham, NC*

- Developing a SWIFT banking message simulator for Fidelity's Agency Lending team using **Spring Boot** with Java, and the **Prowide** framework to read, parse and generate MT54X banking messages for automated testing.
- Integrating **Spring Data JPA** with Oracle **SQL Database** to streamline retrieval and handling of raw transaction data.
- Automating project deployment of Kubernetes workloads on **AWS EKS** using Terraform and Jenkins, reducing manual testing configuration, enabling rolling updates, and accelerating end-to-end **CI/CD delivery.**

Epic Hire Sept 2024 – Dec 2024

Data Science Intern *Chapel Hill, NC*

- Created a resume-matching algorithm with **Python** by fine-tuning Hugging Face's **JobBERT NLP Transformer** on candidate data to provide data-driven job recommendations in Epic Hire's hiring platform.
- Implemented **cosine-similarity** and Euclidean-distance ranking algorithms to improve semantic text matching and enhance recruiter candidate insights.

UNC Chapel Hill Department of Biostatistics June 2024 – Aug 2024

Undergraduate Research Assistant *Chapel Hill, NC*

- Examined genetic sequencing data and performed **statistical regression tests** to identify significant genetic patterns and trends in infected cells under Dr. Fei Zou.
- Employed **R packages** such as Seurat and xCell Analysis for advanced single-cell data analysis and visualization.

Projects

CSXL Website AI Study Buddy | *Angular, FastAPI, SQLAlchemy, OpenAI API, OKD Kubernetes* Jan 2025 – May 2025

- Deployed a **full-stack** AI-assisted study buddy feature on the UNC CSXL site for more than **2,000+** CS students.
- Leveraged **FastAPI CRUD** endpoints integrated with the **OpenAI API's** o4 model to generate practice problems, study guides, and instructor reports on UNC computer science courses over 4-week **Agile sprints**.

Milwaukee Bucks NBA Ticket Plan Strategies | *Python, Pandas, Matplotlib, Numpy* Feb 2025

- **Placed 2nd** in the Milwaukee Buck's Business Analytics Hackathon for developing a predictive analytics solution and business model for identifying fan purchasing behavior for their newly introduced season partial ticket plans.
- Normalized and standardized **44,000+** historical fan purchasing data with Python to ensure data consistency, and applied **K-means clustering** and **PCA to segment** fans with similar traits and buying patterns.
- Implemented **Linear & Lasso Regression** to find primary purchase drivers and **Random Forest** for predictive insights.

Traveling Tourists Problem | *Python, Folium, Streamlit, Pandas, TourPediaAPI* Oct 2024

- Engineered a solution to a variation of the Traveling Salesperson Problem by generating a **personalized travel itinerary** service that optimizes routes based on each tourist's user preferences.
- Deployed an interactive map application using **Folium** and **Streamlit**, pinpointing 1000+ high-quality overlooked city locations, **winning 1st place** in the 2024 CDC Hackathon.
- Cleaned and analyzed **492,880+** data points in the TourPediaAPI to feed into algorithm route calculations.

iMarket Product App | *Swift, SwiftUI, RESTAPIs* Aug 2024 – Sept 2024

- Developed a mock shopping **IOS App** with **Swift** that provides an interactive cart for buying online products.
- Integrated DummyJSON's Products API to fetch and load dynamic items, using SwiftUI to build a responsive design.

Predicting High-Risk Wildfire Zones | *Python, Tableau, scikit-learn* Oct 2023

- Created a successful **machine learning risk-assessment model** utilizing Python and a **gradient-boosting regressor** in scikit-learn to identify the primary factors influencing wildfire progression in a dataset with **10,000+** values.
- Leveraged **Tableau** to create **data visualizations** such as treemaps, geographic bubblemaps, and t-test diagrams.

Technical Skills

Languages: Java, Python, Javascript, Typescript, SQL (MySQL, PostgreSQL), Swift, R, C, HTML, CSS
Frameworks & Libraries: Angular, Spring Boot, React.js, Node.js, Pandas, NumPy, Matplotlib, Seaborn, scikit-learn, PyTorch, JUnit, SwiftUI, Rest APIs
Developer Technologies: Git, Docker, AWS (EKS, Cloud), Kubernetes, CI/CD (Jenkins, Github Actions), Terraform, Tableau, IBM MQ, Oracle SQL Developer, Agile Methodologies, Figma