NATHAN CHEN

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TECHNICAL SKILLS

Data Science Research	Paper Publication, Data Analytics, Annotation Studies
Data Science, Analytics, Visualization	Python, R, SQL, SQLite, Spark, Amazon EC2
Web Development and API Design	React JS, Node.js, JavaScript, HTML, CSS, Git

EDUCATION

BS in Informatics and Data Science, University of Washington — Sept 2021 - May 2025

- **Cumulative GPA**: 3.65/ 4.0

- **Relevant Coursework**: Database Management Systems, Machine Learning, Data Programming, Artificial Intelligence, Statistical Methods, Calculus, Data Structures and Algorithms, Biomedical and Health Informatics

PROFESSIONAL EXPERIENCE

Research Assistant (Genetics and Mental Health) — Nov 2023 - Current
University of Washington — *Seattle, WA*

- Conducting data harmonization for psychosis data using Python to examine variability in genetic risk profiles.

- Developing custom GPTs and leveraging openAPI schema to create fine-tuned mental health coach chatbot.

Student Researcher (Disinformation) — June 2023 - Sept 2023
USC Information Sciences Institute — *Marina Del Rey, CA*

- Implementing a web plug-in server with Hugging Face pre-trained models, Google Cloud Natural Language, and GPT APIs to highlight disinformation in online news without model training.

- Visualized emotion and subjectivity distribution in news media using Pandas, Matplotlib, and Seaborn (Python) to indicate bias in partisan media and validate hypothesis testing.

- Achieved publication as first author at 2023 Research in Networking and Systems at ACM Conference.

Data Analytics/ Testing Intern — June 2022 - September 2022
PACCAR Financial Corp. — *Bellevue, WA*

- Identified 50+ software defects by leading user acceptance testing (UAT) and managing 20 employee testers for company's biggest software upgrade in 20 years .

- Automated browser testing using Selenium (Python) and Microsoft Power Platform to save 5 seconds per test.

- Partnered with program manager and engineers using Azure DevOps for Scrum software development planning.

PROJECT EXPERIENCE

Data Science Project: Multi-Class Cirrhosis Prediction — November 2023 - December 2023
Tech Stack: Pandas, Scikit-learn, imbalanced-learn, matplotlib, seaborn — *Seattle, WA*

- Achieved 5% increase in weighted f1 score by fixing output/ label imbalance using SMOTE data sampling and fine-tuning Random Forest hyperparameters using sklearn's RandomizedSearchCV and GridSearchCV.

- Created visualizations in ANOVA T-Test bar graph for feature importance, seaborn pairplots for feature correlation, and Confusion Matrix for results analysis.

Database Application Development: Vaccine Scheduler — November 2023 - December 2023
Tech Stack: pymssql, Python, SQL, Microsoft Azure — *Seattle, WA*

- Developed a Python backend system with pymssql to manage vaccine scheduling using Azure cloud storage.

- Designed database schema using ER diagrams and developed SQL queries to manage database system.