**Guan Chen**

guanhc416@gmail.com | [Website](https://guanhchen.github.io/) | [Github](https://github.com/GuanHChen)

**EDUCATION**

**University of Texas at Dallas Richardson, Texas**

Master of Science, Social Data Analytics and Research Expected Dec 2025

* 3.95 / 4.0

Bachelor of Science, Biochemistry 2022

* 3.69 / 4.0
* Academic Excellence Scholarship Award | SPUR Honors Presentation Award

**WORK EXPERIENCE**

**Motor Controls Inc Dallas, Texas**

*Software Engineer Aug 2025 – Present*

* Maintaining and developing operations reports, improving data accessibility and facilitating data-driven decision making
* Engineering new functionalities to enhance internal ERP, MES, and CRM systems, leading to more streamlined processes for all departments

*IT Intern May 2025 – Aug 2025*

* Performed cost analysis and forecasting on transition between BI reporting software, saving over **$76,000** annually on licensing costs
* Developed performance reports using **Power BI**, providing supervisors with the **first-ever** implementation of an analytics tool to evaluate employee efficiency at the company
* Optimized **SQL** queries leading to a **30%** reduction in data retrieval time and minimized load on the server

**University of Texas at Dallas Richardson, Texas**

*Research Assistant Jan 2022 – Aug 2025*

* Mentored **7** undergraduate students in experimental design and data analysis
* Engineered a protocol for a novel solid state media, enabling further study of microbial interactions with “forever chemicals” (PFAS)

**PROJECTS**

**Credit Default Prediction Machine Learning Model**

* Optimized a credit default prediction model using **random forests** and **XGBoost** in **Python**, leveraging the **Scikit-Learn** and **Pandas** librariesand achieving a **7%** increase in performance compared to the literature

**Automated Expedia Data Pipeline**

* Developed a data pipeline using **Python**’s **Selenium** package to automate the collection of airline prices, flight durations, and layover details from Expedia

[**Analytics Web Application**](https://guanhchen.shinyapps.io/expenseapp/)

* Developed a dynamic web application to analyze expenses in **R** using **Shiny**, integrated with **PostgreSQL** for fast and efficient data management

**CERTIFICATES**

Google Data Analytics Certificate Jun 2024