Quentin "Jack" Cook

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• https://github.com/jackqcook

EDUCATION

Bachelor of Science, Applied Computational Mathematics (ACME)   **Aug 2022—Apr 2026**
Brigham Young University   *Provo, UT*
- Concentration in Machine Learning
- Minor in Philosophy
- GPA 4.0

SKILLS

- Proficient in Python (Scikit-learn, NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, PyTorch, TensorFlow, Keras), SQL, Excel, Spanish
- Experienced in C++, HTML, CSS
- Some experience with React, JavaScript, VBA, Tableau

EXPERIENCE

Research Assistant   **March 2024—Present**
Information and Decision Algorithm Laboratories (IDeA Labs)   *Provo, UT*
- Work with two computer science professors and three students to 'solve baseball' using computational math and game theory. Mathematical models are used by the 2023 World Series Champions, Texas Rangers to improve defensive strategy
- Create deep learning models in Python to accurately predict player specific positioning
- Will present findings at the 2024 Saber Metrics analytics conference to Major League Baseball organizations

Quantitative Analyst   **December 2023—June 2024**
Guardsman Capital   *Sandy, UT*
- Conducted research and analysis of portfolio assets, identifying key trends and opportunities for optimization using Python and Excel forecasting models
- Addressed a problem with overfitting in the financial forecasting model by incorporating regularization techniques to reduce model complexity
- Aided in strategic planning and decision-making with the partners of the firm to invest in the startup Bookend AI, contributing to a 21% projected growth for the firm's venture capital portfolio

Intern   **May 2023—Aug 2023**
United States Senate (Senator Romney's office)   *Washington, D.C.*
- Participated in Legislative meetings. Helped staffers research the following topics: Healthcare, Climate/Energy, Technology, Economy/Budget
- Prepared bios and other informational documents for Senator Romney
- Gave tours of the US Capitol Building, helped answer emails, phone calls, and letters

Sales Representative   **July 2022–Aug 2022**
Brooks Pest Control   *Riverside, CA.*
- Grossed $30,000 in revenue over a six-week period
- Helped recruit and train other sales representatives for Summer 2023

PROJECTS

Simple. https://github.com/NathanAsayDong/SimplAPI.git
- Worked with three friends to create a personal finance app that tracks expenses and savings
- Developed and maintained the backend of the app using Python
- Worked with cloud computing platforms such as Google Firebase and Amazon Web Services

- Implemented Firebase Authentication for secure user login and management

Premier League Prediction Model https://github.com/jackqcook/Sports-Prediction-Model.git
- Created a Deep Neural Network (DNN) that accurately predicted premier league football matches with 85% accuracy
- Used advanced machine learning techniques and frameworks, including TensorFlow and Keras, for model development and training
- Performed hyperparameter tuning and model optimization to enhance predictive performance
- Validated model predictions using historical match data and cross-validation methods

VOLUNTEER

Church of Jesus Christ of Latter-day Saints   **Aug 2020–Jul 2022**
Voluntary Representative   *Antofagasta, Chile*
- Served as a missionary for two years in Northern Chile and Eastern Tennessee   *Knoxville, Tennessee*
- Organize and taught free English classes
- Provided services for multiple charitable organizations such as food banks, homeless shelters, thrift stores

Hands-on Science Courses for Navajo Youth   **2017–2020**
- Created videos and materials for after-school enrichment activities for elementary students in Bluff, Utah
- Volunteered on the Navajo Reservation with the University of Utah Design Build Bluff where they helped build a home for a Navajo family; helped paint and provided labor