RONALD WEIL JR.

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EDUCATION

B.S. Computer Science & Engineering, Bucknell University

2025

• Relevant Coursework: Data Mining, Computer Architecture, Design and Analysis of Algorithms, Operating Systems, Full-Stack Web Development, Computer Networks and Security

Physics Minor 2025

 Relevant Coursework: Applied Electronics, Digital System Design, Electrical and Computer Engineering Analysis, Wave Mechanics & Quantum Physics

SKILLS

Languages: Python, C, C++, SQL, Java, TypeScript, JavaScript, Elixir, HTML, Golang, Verilog

Frameworks & Libraries: React Native, Next.js, Phoenix, TensorFlow, XGBoost, CatBoost

Tools & Environments: Git, MariaDB, SQLite, Anaconda, Linux

Concepts: Machine Learning, Data Mining, OCR, Encryption, Embedded Systems, Algorithm Design, Full Stack Web

Development, RISC-V

EXPERIENCE

Full Stack App Development Symptom Detective

June 2024 - January 2025

Houston, TX

- Built backend storage and AI-powered food recognition features for a cross-platform mobile app
- Implemented OCR label scanning and ingredient extraction using machine learning
- Evaluated third-party APIs for cost-effectiveness and supported technical presentation prep

Datadrive Developer Bucknell Mechanical Engineering Department August 2024 - May 2025

Lewisburg, PA

• Designed and implemented MariaDB database and Python interface for sensor data collected from a kinematics research vehicle

PROJECTS

Kaggle Home Credit

Tech: CatBoost, XGBoost, Pandas, Imbalanced Learn, SHAP, Seaborn, Matplotlib

- Engineered ML models to predict loan default risk for users without credit history
- Cleaned and processed over 1M rows of highly imbalanced data using advanced techniques (SMOTE, SHAP)

AI Trading Bot

Tech: Hugging Face Transformers, FinBERT, Alpaca API, Torch

- Built a sentiment-driven trading bot that analyzes ETF news headlines and executes trades based on NLP predictions
- Integrated real-time financial data with a neural network to dynamically adjust buy/sell strategy

LEADERSHIP

Community Impact Assistant Bucknell Food Securities Program May 2023 - August 2023 Lewisburg, PA

Coordinated logistics for weekly food drives and supervised community garden volunteer efforts