Srikar Vootkur

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GitHub Site | LinkedIn

Education

Bachelor of Science - Mathematics (Minor: Computer Science) **2017-2021 (Degree Expected: May 2025)**

University of Wisconsin-Madison (GPA: 3.33) *Madison, WI*

- Relevant CS Coursework: Data Structures, Artificial Intelligence, Data Analytics, Machine Learning
- Relevant Math Coursework: Mathematical Statistics, Probability, Advanced Linear Algebra, Analysis

Master of Science - Applied and Computational Mathematics **Expected Start Date: May 2025**

Johns Hopkins University *Baltimore, MD (Remote)*

- Completed prerequisite coursework in Spring and Fall 2024 (GPA: 4.0)

Skills

Programming Languages Python | SQL | C++ | Java | R

Technologies Pandas | PyTest | Snowflake | AWS | Scikit-learn | PyTorch | PySpark | Git

Work Experience

Pacific Life **June 2021 - Aug 2023**

Predictive Data Analytics Analyst *Newport Beach, CA*

- Managed the Fixed Index Annuity (FIA) products for the Retirement Solutions Division, including: proposing bi-weekly rate updates, forecasting profitability in Python, and presenting to Product Design Team directors in a Tableau dashboard.
- Led a project to transition the calculation of monthly product returns to an object-oriented Python program with secure data storage in Snowflake, saving fifteen hours each month.
- Programmed an automated options pricing tool in Python, leveraging the Black-Scholes model and eliminating reliance on a Bloomberg Terminal, achieving annual cost savings of thousands of dollars.
- Developed and scheduled production pipelines in Azure Data Factory to clean, transform, and upload data into Snowflake, leveraging modern ETL processes with Snowpark and SQL.

Pacific Life **May 2020 - Apr 2021**

Actuarial Intern *Newport Beach, CA (Remote)*

- Developed a Python-based illustration tool for Fixed Index Annuity hedging models and gained experience integrating REST APIs and Node.js for scalable data processing.
- Translated an Implied Volatility model from C# to Python to allow for modularity.

Department of IT, UW-Madison **Aug 2019 - May 2020**

Enterprise Business Systems Analyst *Madison, WI*

- Conducted Agile software testing to verify patches for core Human Resource databases and onboarded new employees to system functionalities and daily operations.
- Collaborated on a data analysis project using R to monitor project timelines and optimize backlog management.

TAI Diagnostics **Jan 2018 - Aug 2018**

Data Science Intern *Wauwatosa, WI*

- Improved threshold estimates for donor DNA ratios in heart transplant rejection tests by performing regression analysis in R.
- Created an R Shiny tool to assist nurses and lab technicians in clinical trials of gathering DNA data from blood samples with a LightCycler.

Projects

AWS Lambda Event Automation

- Built an AWS Lambda solution with API Gateway to automate Google Calendar event creation using Python, showcasing serverless architecture and API integration expertise
- The workflow is designed to accept natural language or structured JSON input via an HTTP API, parse the input into the appropriate format, and interact with the Google Calendar API to schedule events

Breast Cancer Classification

- Performed EDA on the Breast Cancer Wisconsin dataset and built a neural network from scratch using object-oriented principles to obtain a 98% accuracy in identifying whether a tumor was malignant or benign.

NBA Scoring Prediction Model

- Created a Gradient Boost model from scratch to predict points scored by a player in upcoming games.
- Developed a dynamic front-end for the app that is hosted using Streamlit cloud.