

Jack Dunn

Actuarial Analyst

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PROFESSIONAL EXAMS

Passed SOA Exam FM (Financial Mathematics)

December 2025

Passed SOA Exam P (Probability)

March 2026

EDUCATION

Bachelor of Arts: Mathematics

December 2025

Southern New Hampshire University

Minor in Information Technology

Cumulative GPA: 4.0

EMPLOYMENT HISTORY

Freelance Web Developer

January 2023 – Present

Self-Employed

- Gathered business requirements directly from clients to deliver custom, responsive web solutions on schedule.
- Built tailored web solutions and automated workflows for small businesses, eliminating manual data entry and recurring admin tasks.
- Analyzed site performance and user traffic trends to implement practical optimizations and improve search visibility.

Web Developer

October 2020 – January 2023

Slotfocus LLC

- Built and maintained an analytics reporting portal used by 20 casinos nationwide to monitor gaming floor performance.
- Integrated interactive Tableau dashboards and data visualizations to help floor managers interpret operational data.
- Created automated testing routines to catch errors and ensure platform reliability.

PROJECTS

Credit Risk Analysis of a Corporate Bond Portfolio (*Senior Capstone Project*)

- Calculated and used forward curves to price bonds across all S&P Global credit rating levels across various time horizons.
- Modeled and compared cumulative default rates for each rating across a 10-year period.
- Implemented CreditMetrics Monte Carlo simulation with both discrete and continuous-time Markov models to forecast and compare multi-year portfolio-level credit Value at Risk.

Data Encryption Standard (DES) Implementation in Excel VBA (*Independent Research Project*)

- Created a custom VBA class to simulate bit operations, enabling spreadsheet encryption via DES.
- Implemented a full Feistel Network architecture, including 16-round subkey generation, expansion functions, and S-Box substitutions.
- Developed modules for file processing to load, parse, and write to files, enabling full encryption/decryption.

SKILLS

Data Analytics & Modeling: Excel, VBA, R, MATLAB, Pandas, Tableau

Programming: Python, SQL, JavaScript, C++, Firebase, Git, Azure

EXTRACURRICULAR

Private Math Tutor (*Wyzant*)

2022 & 2023

- Provided one-on-one tutoring for an Algebra I student and a college-level Calculus I-II student.
- Assisted various students with foundational topics, including solving systems of linear equations, algebraic operations, derivatives, integration, and infinite series.