

Joseph M. Weaver

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Professional Profile

Career Objective

I am looking for an opportunity to practice AI, specifically deep learning techniques, in a practical application.

Skills Summary

- Primarily fluent in Python, R, C#, and many SQL dialects, secondary experience with Java, C/C++, Perl, Visual Basic, Javascript, Shell, Batch, Powershell, MS Office, Windows, and Linux.
- Machine learning and big data architecture with practical knowledge in linear algebra, neural networks and statistical methods, communicating complex ideas easily in Confluence.

Professional Experience

Jackson National Life, Lansing, Michigan

Sr. AI Engineer

2018 – 2022

Primary contributor to data engineering and analytics architecture for Jackson. I created secure streaming and batch processes for populating datalakes, both Cloudera and ADLS, using a platform independent dockerized Spark code, that implemented self-healing concepts and idempotence. I also developed a CRISP-DM based model development lifecycle compatible with agile processes, that wove the responsibilities of data engineering, data scientists and AI engineers into a production pipeline for AI, that satisfied the legal, risk, and information security requirements.

Sr. Capacity Planner

2011 – 2018

I was the primary contributor to the creation of the Capacity Planning department at Jackson, leading a team of 3-4 people. I created production automated processes that ran regression analysis to forecast expected hardware and software usage patterns based on projected business usage reducing our capacity related events to near 0. I used cluster analysis to profile servers, enabling a huge reduction of our data center estate (80-90%). I brought Hadoop and related technologies to Jackson, successfully data engineering with R and Python the consumption of performance metrics at a scale of 270 TBs/yr with tables with 3 trillion rows of data, with excellent performance.

Sr. Software Developer

Jun 2005 – 2011

I specialized in automated systems in C#. I designed and was the lead implementer for the automation frameworks and all automated processes for Jackson's nationwide broker dealer network (NPH, NPC, SII, INVEST, ICA). During this tenor, I overhauled a fragmented, error prone set of about 100 automated processes written in Perl, VBA, Java, and few other languages and converted them into a .Net application, all the while increasing the amount of automation to 10,000 jobs and reducing our error rate to near 0, nearly eliminating the need for costly support teams.

Education

Michigan State University, Lansing, Michigan

Ph.D. in Probability and Statistics

August 2024 – Current

Masters of Science – Statistics

August 2022 – August 2024

Central Michigan University, Mt. Pleasant, Michigan

Bachelor of Science - Business Administration

August 2019 – May 2022

Lansing Community College, Lansing, Michigan

Associate of Science Degree - Mathematics and Physics

August 2010 – Dec 2013

Oakland University, Rochester, Michigan – Computer Science

August 2001 – May 2003

Oakland Community College, Highland, Michigan – Computer Science

August 1999 – August 2001