

# Oscar Adimi

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## SUMMARY

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8 years of experience building Machine Learning and Generalized Linear models to drive company's profitability and growth. Strong background in data collection, preparation, analysis, model building and visualization. Experienced in model deployment and monitoring.

## Languages and Skills

- Proficient in: Python, Pyspark, SQL, advanced Excel (Business Presentations), Azure DevOps, Azure Databricks, Azure Data Factory, and PowerBI.
- Familiar with: Kusto,
- Machine Learning (Gradient Boosting, Extra Trees, Random Forests, Lasso, K-Means, PCA, Grid Search, Preprocessing, overfitting control).
- Deep Learning: Natural Language Processing using Embeddings, Recurrent Neural Networks and LSTM Cells, Computer Vision using Pytorch, PreTrained Deep Learning Models such as Resnet and Bert.
- Advanced Generalized Linear Models (Tweedie), Poisson Regression, Logistic Regression, Model Selection (Backward, Forward and Stepwise), Model Validation and Diagnostics (Studentized Residuals, Leverage Values, Influentials), Time Series (Exponential Smoothing, Box Jenkins), Survival Analysis using Kaplan Meyer Estimate and Cox Regression.

## EDUCATION

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### University of Pittsburgh, Pittsburgh PA

In Progress

PhD in Statistics

- **Stat 2300: Statistical Packages** using **R** and **SAS**: importing and exporting raw data files, data manipulation and transformation, combination of SAS data sets, statistical programming using SAS procedures.
- **Stat 2131: Applied Statistical Methods** using **SAS Sequences 1 and 2**: Simple and Multiple Linear Regression, Statistical Inferences, Diagnostic and Remedial Measures, Model Building, ANOVA, ANCOVA, Randomized Complete Block Design.
- **Stat 2630: Statistics and Probability** Sequences 1 and 2.
- **Applied Mixed Models** (short course).
- **STAT 2640: Survival Analysis**
- **STAT 2631: Theory Of Statistics**: Modern computational methods like Bootstrap, Jackknife, Markov Chain Monte Carlo, Statistical Inference, Theory of Point Estimation, and Hypothesis Testing.
- **STAT 1201: Applied Non Parametric Statistical Methods**: Binomial Distribution, Ranking methods for two independent samples, Mann-Witney test, Wilcoxon's Sign Rank test, Exact Chi-Square, Kruskal Wallis statistic, Friedman Index, Confidence Limits and Significance Testing,

### Roosevelt University, Chicago IL

Spring - 2011

Masters in Mathematics and Actuarial Science

Cumulative GPA: 3.66/4.0

### University of Abomey Calavi, BENIN

Summer-2006

Bachelor of Business Administration

## PROFESSIONAL EXPERIENCE

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### Microsoft, Redmond, WA

09/2018 – Present

Data Scientist

- Develop, enhance, and maintain scalable, repeatable data pipelines and products from a variety of large-scale data sources to support analytics and at scale reporting solutions.
- Use Applied Machine Learning techniques and advanced statistical techniques to resolve business problems.
- Contract with co-workers, partners, and customers to define data needs, research questions, analysis plans and deliverable timelines.

- Translate analytical findings into succinct, actionable business insights.
- Communicate results effectively for application to business decisions and provide follow up insights in a timely manner.
- Maintain and enhance end to end Natural Language processing pipeline for survey data.

**12/2013 – 09/2018**

**Zurich North America, Schaumburg, IL**

Data Scientist / Predictive Modeler

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- Collect data from various sources (internal and external) using Hive and other database connection in SAS and conduct appropriate reconciliation of premiums and losses.
  - Use Applied Machine Learning techniques such as Gradient Boosting, Random Forest, Extra Trees Regressor and advanced statistical techniques such as Generalized Linear models and Time Series to resolve business problems and impact Target Price.
  - Use PySpark for Machine Learning model deployment code and SAS for accounts scoring code.
  - Monitor Underwriting models for Accuracy, Execution and Impact on Target Price and report to business partners.

**Judson University, Elgin IL**

**Spring 2016-09/2018**

Mathematics/ Statistics Adjunct Instructor

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- Instructed in Statistics, Mathematics and Finance class for adult learners. Task included course and syllabus preparation, exams, grades reporting in timely manner.

**KEY ACHIEVEMENTS**

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- Hackathon: Used LinkedIn data to build an AI model (Recurrent Neural Network) to predict the sequence of intermediate positions to achieve your dream role.
  - Work Place Analytics: Conducted in-depth analysis using Work Place Analytics data in combination with Sales Outcome data to generate business insights
  - Risk Engineering: Built model generations 2.0 and 2.1 using Python. Project scope includes \$3 billion of premium and \$1.5 billion of losses. Project included data collection, analysis file creation, variable selection, model building, validation and diagnostics, scoring script creation, model deployment through Flask API, and model monitoring. Conducted impact analysis on scores changes and accounts price changes from generation 2.0 to 2.1. Model helped the Risk Engineers to be more competitive in the market and improved the target price by 3%. Presented results to Actuarial Pricing and Underwriting.
  - Workers Compensation: Contributed to the Pure Premium GEN 3.0 model build and deployment. Project scope includes \$46 billion of losses and \$40 billion of premium. Used advanced SAS for data management, variable creation and model building. Successfully lead analysis file creation and Bulk Testing for model implementation. Provided periodic accounts batch scoring for actuarial analysis.
  - Leading Indicators: Built a Time Series model to predict the frequency of claims using internal and external factors. Used SQL management for data collection, advanced SAS for data management and R for model build. Used Excel for implementation and presentation to Business Partners.

**CERTIFICATIONS AND EXAMS**

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- Python for Data Science (Enthought).
  - AI Programming with Python (Udacity).
  - Natural Language Processing Nanodegree (Udacity).
  - Microsoft Azure Data Scientist Associate
  - Microsoft Azure AI Associate
  - Actuarial Exam P: Statistics and Probability
  - E-Cornell Data Science Certificate