

# PGA Tour Performance Analytics Project

## Executive Summary

This project analyzes PGA Tour player performance data to identify key success drivers, create player valuation models, and provide actionable insights for player development, scouting, and strategic decision-making.

## Project Overview

Objective: Identify what performance metrics drive earnings and success on the PGA Tour

Tools Used: MySQL, Excel, Advanced SQL Analytics

Data Scope: Player performance data (2018)

Key Deliverables: SQL analysis, predictive models, interactive Excel dashboard

## Business Questions Answered

### 1. Performance Valuation

- What skills have the highest correlation with player earnings?
- How can we accurately predict a player's market value?
- What separates elite players from average performers?

### 2. Player Development

- Which players show the most year-over-year improvement?
- What are the different paths to success (player archetypes)?
- How does experience impact performance?

### 3. Strategic Insights

- Are there undervalued players in the market?
- What training focus areas yield the highest ROI?
- How can teams optimize player recruitment?

## Methodology

### Data Preparation

- Cleaned financial data (removed currency symbols, normalized formatting)
- Handled missing Strokes Gained metrics
- Created calculated fields for performance analysis

### SQL Advanced Analytics

Key analyses performed:

- Correlation studies between performance metrics and earnings

- Player clustering using multi-dimensional similarity scoring
- Year-over-year performance trend analysis
- Predictive earnings modeling using multiple regression logic
- Experience impact analysis on career trajectories

### **Excel Dashboard**

- Dynamic key performance indicators
- 6 interactive charts showing different performance dimensions
- Player archetype visualization
- Earnings distribution analysis

## **Key Findings**

### **Financial Insights**

- Strokes Gained: Total has the highest correlation with earnings (0.77)
- Power Hitters earn 25% more than Accuracy Players on average
- Top 10% performers earn 2x the league average

### **Performance Insights**

- Strokes Gained: Approach is the most valuable skill component
- Player consistency (low score variance) correlates with higher earnings
- Experience premium: Veterans maintain performance longer than expected

## **Business Impact**

### **Player Scouting**

- Created framework for identifying undervalued talent
- Developed player comparison tools for recruitment
- Established performance benchmarks by archetype

### **Contract Valuation**

- Built predictive earnings model with 85% accuracy
- Identified key metrics that drive contract value
- Created tier-based valuation framework

### **Training Optimization**

- Data-driven approach to skill development focus
- Identified most valuable skills for ROI
- Created improvement tracking system