

Dataset Column Legend

Initial columns of the dataset

The specification of the initial columns of the dataset were adopted from Cam Nugent (Kaggle: <https://www.kaggle.com/datasets/camnugent/predict-nhl-player-salaries>)

%FOT - Percentage of all on-ice faceoffs taken by this player.

+/- - Plus/minus

A/60 - Events Against per 60 minutes, defaults to Corsi, but can be set to another stat

BLK% - Percentage of all opposing shot attempts blocked by this player

Born - Birth date

CA - Shot attempts allowed (Corsi, SAT) while this player was on the ice

CBar - Crossbars hit

CF - The team's shot attempts (Corsi, SAT) while this player was on the ice

CF.QoC - A weighted average of the Corsi percentage of a player's opponents

CF.QoT - A weighted average of the Corsi percentage of a player's linemates

CHIP - Cap Hit of Injured Player is games lost to injury multiplied by cap hit per game

DAP - Disciplined aggression proxy, which is hits and takeaways divided by minor penalties

DFA - Dangerous Fenwick against, which is on-ice unblocked shot attempts weighted by shot quality

DFF - Dangerous Fenwick for, which is on-ice unblocked shot attempts weighted by shot quality

DFF.QoC - Quality of Competition metric based on Dangerous Fenwick, which is unblocked shot attempts weighted for shot quality

DftRd - Round in which the player was drafted

DftYr - Year drafted

Diff - Events for minus event against, defaults to Corsi, but can be set to another stat

Diff/60 - Events for minus event against, per 60 minutes, defaults to Corsi, but can be set to another stat

DPS - Defensive point shares, a catch-all stats that measures a player's defensive contributions in points in the standings

DSA - Dangerous shots allowed while this player was on the ice, which is rebounds plus rush shots

DSF - The team's dangerous shots while this player was on the ice, which is rebounds plus rush shots

DZF - Shifts this player has ended with an defensive zone faceoff

dzFOL - Faceoffs lost in the defensive zone

dzFOW - Faceoffs win in the defensive zone

dzGAPF - Team goals allowed after faceoffs taken in the defensive zone

dzGFPP - Team goals scored after faceoffs taken in the defensive zone

DZS - Shifts this player has started with an defensive zone faceoff

dzSAPF - Team shot attempts allowed after faceoffs taken in the defensive zone

dzSFPP - Team shot attempts taken after faceoffs taken in the defensive zone

E+/- - A player's expected +/-, based on his team and minutes played

ENG - Empty-net goals

Exp dzNGPF - Expected goal differential after faceoffs taken in the defensive zone, based on the number of them

Exp dzNSPF - Expected shot differential after faceoffs taken in the defensive zone, based on the number of them

Exp ozNGPF - Expected goal differential after faceoffs taken in the offensive zone, based on the number of them

Exp ozNSPF - Expected shot differential after faceoffs taken in the offensive zone, based on the number of them

F.Close - A player unblocked shot attempt (Fenwick) differential when the game was close

F.Down - A player unblocked shot attempt (Fenwick) differential when the team was trailing

F.Tied - A player unblocked shot attempt (Fenwick) differential when the team was tied

F.Up - A player unblocked shot attempt (Fenwick) differential when the team was in the lead. Not the best acronym.

F/60 - Events For per 60 minutes, defaults to Corsi, but can be set to another stat

FA - Unblocked shot attempts allowed (Fenwick, USAT) while this player was on the ice

FF - The team's unblocked shot attempts (Fenwick, USAT) while this player was on the ice

First Name -

FO% - Faceoff winning percentage

FO%vsL - Faceoff winning percentage against lefthanded opponents

FO%vsR - Faceoff winning percentage against righthanded opponents

FOL - The team's faceoff losses while this player was on the ice

FOL.Close - Faceoffs lost when the score was close

FOL.Down - Faceoffs lost when the team was trailing

FOL.Up - Faceoffs lost when the team was in the lead

FovsL - Faceoffs taken against lefthanded opponents

FovsR - Faceoffs taken against righthanded opponents

FOW - The team's faceoff wins while this player was on the ice

FOW.Close - Faceoffs won when the score was close

FOW.Down - Faceoffs won when the team was trailing

FOW.Up - Faceoffs won when the team was in the lead

G - Goals

G.Bkhd - Goals scored on the backhand

G.Dflct - Goals scored with deflections

G.Slap - Goals scored with slap shots

G.Snap - Goals scored with snap shots

G.Tip - Goals scored with tip shots

G.Wrap - Goals scored with a wraparound

G.Wrst - Goals scored with a wrist shot

GA - Goals allowed while this player was on the ice

Game - Game Misconduct penalties

GF - The team's goals while this player was on the ice

GP - Games Played

Grit - Defined as hits, blocked shots, penalty minutes, and majors

GS - The player's combined game score

GS/G - The player's average game score

GVA - The team's giveaways while this player was on the ice

GWG - Game-winning goals

GWG - Game-winning goals

HA - The team's hits taken while this player was on the ice

Hand - Handedness

HF - The team's hits thrown while this player was on the ice

HopFO - Opening faceoffs taken at home

HopFOW - Opening faceoffs won at home

Ht - Height

iBLK - Shots blocked by this individual

iCF - Shot attempts (Corsi, SAT) taken by this individual

iDS - Dangerous shots taken by this player, the sum of rebounds and shots off the rush

iFF - Unblocked shot attempts (Fenwick, USAT) taken by this individual

iFOL - Faceoff losses by this individual

iFOW - Faceoff wins by this individual

iGVA - Giveaways by this individual

iHA - Hits taken by this individual

iHDf - The difference in hits thrown by this individual minus those taken

iHF - Hits thrown by this individual

iMiss - Individual shots taken that missed the net.

Injuries - List of types of injuries incurred, if any

iPEND - Penalties drawn by this individual

iPenDf - The difference in penalties drawn minus those taken

iPENT - Penalties taken by this individual

IPP% - Individual points percentage, which is on-ice goals for which this player had the goal or an assist

iRB - Rebound shots taken by this individual

iRS - Shots off the rush taken by this individual

iSCF - All scoring chances taken by this individual

iSF - Shots on goal taken by this individual

iTKA - Takeaways by this individual

ixG - Expected goals (weighted shots) for this individual, which is shot attempts weighted by shot location

Last Name -

Maj - Major penalties taken

Match - Match penalties

MGL - Games lost due to injury

Min - Minor penalties taken

Misc - Misconduct penalties

Nat - Nationality

NGPF - Net Goals Post Faceoff. A differential of all goals within 10 seconds of a faceoff, relative to expectations set by the zone in which they took place

NHLid - NHL player id useful when looking at the raw data in game files

NMC - What kind of no-movement clause this player's contract has, if any

NPD - Net Penalty Differential is the player's penalty differential relative to a player of the same position with the same ice time per manpower situation

NSPF - Net Shots Post Faceoff. A differential of all shot attempts within 10 seconds of a faceoff, relative to expectations set by the zone in which they took place

NZF - Shifts this player has ended with a neutral zone faceoff

nzFOL - Faceoffs lost in the neutral zone

nzFOW - Faceoffs won in the neutral zone

nzGAPF - Team goals allowed after faceoffs taken in the neutral zone

nzGFPPF - Team goals scored after faceoffs taken in the neutral zone

NZS - Shifts this player has started with a neutral zone faceoff

nzSAPF - Team shot attempts allowed after faceoffs taken in the neutral zone

nzSFPPF - Team shot attempts taken after faceoffs taken in the neutral zone

OCA - Shot attempts allowed (Corsi, SAT) while this player was not on the ice

OCF - The team's shot attempts (Corsi, SAT) while this player was not on the ice

ODZS - Defensive zone faceoffs that occurred without this player on the ice

OFA - Unblocked shot attempts allowed (Fenwick, USAT) while this player was not on the ice

OFF - The team's unblocked shot attempts (Fenwick, USAT) while this player was not on the ice

OGA - Goals allowed while this player was not on the ice

OGF - The team's goals while this player was not on the ice

ONZS - Neutral zone faceoffs that occurred without this player on the ice

OOZS - Offensive zone faceoffs that occurred without this player on the ice

OpFO - Opening faceoffs taken

OpFOW - Opening faceoffs won

OppCA60 - A weighted average of the shot attempts (Corsi, SAT) the team allowed per 60 minutes of a player's opponents

OppCF60 - A weighted average of the shot attempts (Corsi, SAT) the team generated per 60 minutes of a player's opponents

OppFA60 - A weighted average of the unblocked shot attempts (Fenwick, USAT) the team allowed per 60 minutes of a player's opponents

OppFF60 - A weighted average of the unblocked shot attempts (Fenwick, USAT) the team generated per 60 minutes of a player's opponents

OppGA60 - A weighted average of the goals the team allowed per 60 minutes of a player's opponents

OppGF60 - A weighted average of the goals the team scored per 60 minutes of a player's opponents

OppSA60 - A weighted average of the shots on goal the team allowed per 60 minutes of a player's opponents

OppSF60 - A weighted average of the shots on goal the team generated per 60 minutes of a player's opponents

OPS - Offensive point shares, a catch-all stats that measures a player's offensive contributions in points in the standings

OSA - Shots on goal allowed while this player was not on the ice

OSCA - Scoring chances allowed while this player was not on the ice

OSCF - The team's scoring chances while this player was not on the ice

OSF - The team's shots on goal while this player was not on the ice

OTF - Shifts this player started with an on-the-fly change

OTG - Overtime goals

OTOI - The amount of time this player was not on the ice.

Over - Shots that went over the net

Ovrl - Where the player was drafted overall

OxGA - Expected goals allowed (weighted shots) while this player was not on the ice, which is shot attempts weighted by location

OxGF - The team's expected goals (weighted shots) while this player was not on the ice, which is shot attempts weighted by location

OZF - Shifts this player has ended with an offensive zone faceoff

ozFO - Faceoffs taken in the offensive zone

ozFOL - Faceoffs lost in the offensive zone

ozFOW - Faceoffs won in the offensive zone

ozGAPF - Team goals allowed after faceoffs taken in the offensive zone

ozGFPF - Team goals scored after faceoffs taken in the offensive zone

OZS - Shifts this player has started with an offensive zone faceoff

ozSAPF - Team shot attempts allowed after faceoffs taken in the offensive zone

ozSFPF - Team shot attempts taken after faceoffs taken in the offensive zone

Pace - The average game pace, as estimated by all shot attempts per 60 minutes

Pass - An estimate of the player's setup passes (passes that result in a shot attempt)

Pct% - Percentage of all events produced by this team, defaults to Corsi, but can be set to another stat

PDO - The team's shooting and save percentages added together, times a thousand

PEND - The team's penalties drawn while this player was on the ice

PENT - The team's penalties taken while this player was on the ice

PIM - Penalties in minutes

x - Penalties in minutes

Position - Positions played. NHL source listed first, followed by those listed by any other source.

Post - Times hit the post

Pr/St - Province or state of birth

PS - Point shares, a catch-all stats that measures a player's contributions in points in the standings

PSA - Penalty shot attempts

PSG - Penalty shot goals

PTS - Points. Goals plus all assists

PTS/60 - Points per 60 minutes

QRelCA60 - Shot attempts allowed per 60 minutes relative to how others did against the same competition

QRelCF60 - Shot attempts per 60 minutes relative to how others did against the same competition

QRelDFA60 - Weighted unblocked shot attempts (Dangerous Fenwick) allowed per 60 minutes relative to how others did against the same competition

QRelDFF60 - Weighted unblocked shot attempts (Dangerous Fenwick) per 60 minutes relative to how others did against the same competition

RBA - Rebounds allowed while this player was on the ice. Two very different sources.

RBF - The team's rebounds while this player was on the ice. Two very different sources.

RelA/60 - The player's A/60 relative to the team when he's not on the ice

RelC/60 - Corsi differential per 60 minutes relative to his team

RelC% - Corsi percentage relative to his team

RelDf/60 - The player's Diff/60 relative to the team when he's not on the ice

RelF/60 - The player's F/60 relative to the team when he's not on the ice

RelF/60 - Fenwick differential per 60 minutes relative to his team

RelF% - Fenwick percentage relative to his team

RelPct% - The player's Pct% relative to the team when he's not on the ice

RelZS% - The player's zone start percentage when he's on the ice relative to when he's not.

RopFO - Opening faceoffs taken at home

RopFOW - Opening faceoffs won at home

RSA - Shots off the rush allowed while this player was on the ice

RSF - The team's shots off the rush while this player was on the ice

S.Bkhd - Backhand shots

S.Dflect - Deflections

S.Slap - Slap shots

S.Snap - Snap shots

S.Tip - Tipped shots

S.Wrap - Wraparound shots

S.Wrst - Wrist shots

SA - Shots on goal allowed while this player was on the ice

Salary - The player's salary

SCA - Scoring chances allowed while this player was on the ice

SCF - The team's scoring chances while this player was on the ice

sDist - The average shot distance of shots taken by this player

SF - The team's shots on goal while this player was on the ice

SH% - The team's (not individual's) shooting percentage when the player was on the ice

SOG - Shootout Goals

SOGDG - Game-deciding shootout goals

SOS - Shootout Shots

Status - This player's free agency status

SV% - The team's save percentage when the player was on the ice

Team -

TKA - The team's takeaways while this player was on the ice

TMCA60 - A weighted average of the shot attempts (Corsi, SAT) the team allowed per 60 minutes of a player's linemates

TMCF60 - A weighted average of the shot attempts (Corsi, SAT) the team generated per 60 minutes of a player's linemates

TMFA60 - A weighted average of the unblocked shot attempts (Fenwick, USAT) the team allowed per 60 minutes of a player's linemates

TMFF60 - A weighted average of the unblocked shot attempts (Fenwick, USAT) the team generated per 60 minutes of a player's linemates

TMGA60 - A weighted average of the goals the team allowed per 60 minutes of a player's linemates

TMGF60 - A weighted average of the goals the team scored per 60 minutes of a player's linemates

TMSA60 - A weighted average of the shots on goal the team allowed per 60 minutes of a player's linemates

TMSF60 - A weighted average of the shots on goal the team generated per 60 minutes of a player's linemates

TmxGF - A weighted average of a player's linemates of the expected goals the team scored

TmxGA - A weighted average of a player's linemates of the expected goals the team allowed

TMGA - A weighted average of a player's linemates of the goals the team scored

TMGF - A weighted average of a player's linemates of the goals the team allowed

TOI - Time on ice, in minutes, or in seconds (NHL)

TOI.QoC - A weighted average of the TOI% of a player's opponents.

TOI.QoT - A weighted average of the TOI% of a player's linemates.

TOI/GP - Time on ice divided by games played

TOI% - Percentage of all available ice time assigned to this player.

Wide - Shots that went wide of the net

Wt - Weight

xGA - Expected goals allowed (weighted shots) while this player was on the ice, which is shot attempts weighted by location

xGF - The team's expected goals (weighted shots) while this player was on the ice, which is shot attempts weighted by location

xGF.QoC - A weighted average of the expected goal percentage of a player's opponents

xGF.QoT - A weighted average of the expected goal percentage of a player's linemates

ZS% - Zone start percentage, the percentage of shifts started in the offensive zone, not counting neutral zone or on-the-fly changes

Added columns to the dataset

For the prediction of the player values following additional columns were added to the dataset. The values within the added columns are based on calculations performed on the existing data in the initial columns. The calculations are visible within the code of the file "Final Value Search".

G/GP – Goals per Game

A/GP – Assists per Game

Age – Age of Player (at the end of the year)

Adjusted +/- - +/- difference to expected +/-

BMI – Body Mass Index ($\text{Weight}/\text{Height}^2$)

PIM/GP – Penalties per minutes per game played

iFF/GP - Unblocked shot attempts (Fenwick, USAT) taken by this individual per game

iSF/GP - Shots on goal taken by this individual per game

ixG/GP - Expected goals (weighted shots) for this individual per game

iSCF/GP - All scoring chances taken by this individual per game

Pass/GP - An estimate of the player's setup passes (passes that result in a shot attempt) per game

iHF/GP - Hits thrown by this individual per game

iHA/GP - Hits taken by this individual per game

iMiss/GP - Individual shots taken that missed the net per game

iGVA/GP - Giveaways by this individual per game

iTKA/GP - Takeaways by this individual per game

iBLK/GP - Shots blocked by this individual per game

iPEND/GP - Penalties drawn by this individual per game

iPENT/GP - Penalties taken by this individual per game

SCF/GP - The team's scoring chances while this player was on the ice per game

SCA/GP - Scoring chances allowed while this player was on the ice per game

GF/GP - The team's goals while this player was on the ice

GA/GP - Goals allowed while this player was on the ice

Player Value – Value of Player (Salary the player should be paid based on his stats)

Difference in valuation – Player Value minus the Salary he's paid (if negative: overpaid, if positive: underpaid)