Table 1: Summary of variables

Variable	Definition
FT	Time on ground and opponent not in control (in seconds)
GRC	Time on ground and fighter in control (in seconds)
KDL	Knockdowns landed
KOL	Knockouts landed
RVL	Reversals landed
SGA	Ground strikes attempted
SGBA	Ground strikes at body attempted
SGBL	Ground strikes at body landed
SGHA	Ground strikes at head attempted
SGHL	Ground strikes at head landed
SMA	Submissions attempted
SML	Submissions landed
SSA	Standing strikes attempted
SSBA	Standing strikes at body attempted
SSBL	Standing strikes at body landed
SSHA	Standing strikes at head attempted
SSHL	Standing strikes at head landed
ST	Time standing and opponent not in control (in seconds)
SUL	Standups landed
TDA	Takedowns attempted
TDL	Takedowns landed

Table 2: Overview of skill models

Skill	Abbreviation	Category
standing strikes rate	ssr	striking rate
ground strikes rate	sgr	striking rate
takedown rate	tdr	grappling rate
submission rate	smr	grappling rate
reversal rate	rvr	grappling rate
standup rate	sur	grappling rate
standing strikes head accuracy	ssha	striking accuracy
ground strikes head accuracy	sgha	striking accuracy
standing strikes body accuracy	ssba	striking accuracy
ground strikes body accuracy	sgba	striking accuracy
takedown accuracy	tda	grappling accuracy
submission accuracy	sma	grappling accuracy
knockdown	skd	knockdowns and knockouts
standing knockout	sko	knockdowns and knockouts
ground knockout	gko	knockdowns and knockouts
standing strikes target	sst	striking target
ground strikes target	sgt	striking target

Table 3: Summary of skills models

Skill	Model
ssr	$SSA \sim NegativeBinomialAlt(\eta_{ssr}, \psi_{ssr})$
	$\eta_{ssr} = \gamma_{ssr} + ssr_{att} - ssr_{def} + \log(ST)$
sgr	$SGA \sim NegativeBinomialAlt(\eta_{sgr}, \psi_{sgr})$
	$\eta_{sgr} = \gamma_{sgr} + sgr_{att} - sgr_{def} + \log(FT)$
tdr	$TDA \sim NegativeBinomialAlt(\eta_{tdr}, \psi_{tdr})$
	$\eta_{tdr} = \gamma_{tdr} + tdr_{att} - tdr_{def} + \log(ST)$
smr	$SMA \sim NegativeBinomial(\eta_{smr}, \psi_{smr})$
	$\eta_{smr} = \gamma_{smr} + smr_{att} - smr_{def} + \log(GRC)$
rvr	$RVL \sim NegativeBinomial(\eta_{rvr}, \psi_{rvr})$
	$\eta_{rvr} = \gamma_{rvr} + rvr_{att} - rvr_{def} + \log(GRC_{opponent})$
sur	$SUL \sim NegativeBinomial(\eta_{sur}, \psi_{sur})$
	$\eta_{sur} = \gamma_{sur} + sur_{att} - sur_{def} + \log(GRC_{opponent})$
ssha	$SSHL \sim BetaBinomialAlt(SSHA, \alpha_{ssha}, \psi_{ssha})$
	$\alpha_{ssha} = \gamma_{ssha} + ssha_{att} - ssha_{def}$
sgha	$SGHL \sim BetaBinomialAlt(SGHA, \alpha_{sgha}, \psi_{sgha})$
	$\alpha_{sgha} = \gamma_{sgha} + sgha_{att} - sgha_{def}$
ssba	$SSBL \sim BetaBinomialAlt(SSBA, \alpha_{ssba}, \psi_{ssba})$
	$\alpha_{ssba} = \gamma_{ssba} + ssba_{att} - ssba_{def}$
sgba	$SGBL \sim BetaBinomialAlt(SGBA, \alpha_{sgba}, \psi_{sgba})$
	$\alpha_{sgba} = \gamma_{sgba} + sgba_{att} - sgba_{def}$
tda	$TDL \sim BetaBinomialAlt(TDA, \alpha_{tda}, \psi_{tda})$
	$\alpha_{tda} = \gamma_{tda} + tda_{att} - tda_{def}$
sma	$SML \sim BetaBinomialAlt(SMA, \alpha_{sma}, \psi_{sma})$
	$\alpha_{sma} = \gamma_{sma} + sma_{att} - sma_{def}$
skd	$KDL \sim BetaBinomialAlt(SSHL, \alpha_{skd}, \psi_{skd})$
	$\alpha_{skd} = \gamma_{skd} + skd_{att} - skd_{def}$
sko	$KOL \sim BetaBinomialAlt(SSHL, \alpha_{sko}, \psi_{sko})$
	$\alpha_{sko} = \gamma_{sko} + sko_{att} - sko_{def}$
gko	$KOL \sim BetaBinomialAlt(SGHL, \alpha_{gko}, \psi_{gko})$
	$\alpha_{gko} = \gamma_{gko} + gko_{att} - gko_{def}$
sst	$SSHA \sim BetaBinomialAlt(SSA, \alpha_{sst}, \psi_{sst})$
	$\alpha_{sst} = \gamma_{ssht} + sst_{att} - sst_{def}$
sgt	$SGHA \sim BetaBinomialAlt(SGA, \alpha_{sgr}, \psi_{sgt})$
	$\alpha_{sgt} = \gamma_{sgt} + sgt_{att} - sgt_{def}$