(Small) Reference Cheat Sheet for GLMs

	Normal	Binomial ($n = 1$)	Poisson	Gamma
Notation	$\mathrm{N}(\mu, \sigma^2)$	$\mathrm{Bin}(1, p)$	$\mathrm{Poi}(\lambda)$	$\mathrm{Gamma}(\mu, \nu)$
Common link(s)	Identity	Logit, Probit	Log	Inverse, Log
Variance function $V(\mu)$	1	$\mu(1-\mu)$	μ	μ^2
Dispersion parameter ϕ	σ^2	1	1	$1/\nu$

Example Implementation in Python

```
import statsmodels.api as sm
model = sm.GLM(y, X, family = sm.families.Binomial(sm.families.links.logit))
fit = model.fit()
```

Example Implementation in R

```
model <- glm(y ~ x, data = df, family = binomial(link = "logit")
fit = fitted(model)
```