# The Poet of Statistical Learning Theory

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## Bayesian Arrogance

In foolish youth, so full of false certainty. Hollow confidence, fearing the unknown,

fearing not knowing.

We swim through life as tiny fish in the tidal pool

knowing nothing of the transfinite stars, of the law beyond our niche,

— expecting the world to be as it has always been.

One day, the coin flips thrice, and not all is as it seems.

The Bayesian claims to have the answer,

just don't ask, from whence came the prior?

Can they ever really tell you what the black box obscures?

What shall brush your fingertips as you reach inside?

Is the prior an elegant veneer

- deception hiding an unfounded guess?

The fool lives blindly in false certainty.

But is it truly wise to reason over chance?

Is it wisdom to consider each probable world?

When even the chance is unknown?

Observation is not reality; induction not reliable.

Pierce the first barrier! Discard the veil of certitude!

In this strange universe where chance reigns supreme,

for the smallest of things, the law the luck of the draw, determinism the fool's domain!

But hark! Hear not these false prophets,

lest ye in arrogance forget the second veil.

#### Probability is not uncertainty.

What arrogance have ye to claim to know the dynamics of chance! In an uncertain world, this luxury lies unattained, *lies unattainable*.

So what **Truth** can we *truly* claim?

What universal **Truth**, that which lies beyond

our imagined inner worlds,

our reconstructed tidepools,

those myopic lenses into the terrifying chaos of that reality?

Fear not, sweet child — salvation lies ahead!

The  $\varepsilon$  of precision, the  $\delta$  of chance.

The **true Truth** lies unreachable, but we strive to be

**Probably** 

Approximately

Correct.

# Snake Eyes

Sometimes you roll the dice, and you don't like what comes up.

But sometimes, you roll them again, and again,

#### and again.

Perhaps you don't quite know
— just what game are you playing?

Check your priors, folks.

# The Count of Monte Carlo

Spin the wheel, or roll the dice.
The luck of the draw, champagne on ice!
Count the cards, shuffle the deck.
Take a big chance, why not risk your neck?

To risk it all is to be alive! To play for a change is to truly thrive. With a sharp eye, and a sharper mind, the Truth in the cards is yours to find!

## The Paradox

Be still, my beating heart. Can I ever love another, as I love thee?

In life finite, *never can we know*. Oh, *to be explored*, or **to be exploited?** 

## Bandit of the Heart

I once met a bandit, She pulled each of my heartstrings — *I have no regret*.

### Bennetian Blinds

Bounded chance variables, of bounded range and bounded variance. How doth thee accumulate?

In the Normal way — shall we invoke the transcendent Gauss? Shall we ever reach the limit? Or must we wallow in the woe of the finite?

Variance alone shall not suffice, yet range alone shall leave us wanting. Such was the state of things, until Bennett pulled the blinds from our

Oh to be sub-Poisson
— or perhaps sub-gamma is enough?

Slow decay in the root of variance, *all is as it should be*. Fast decay in the range, *whence the black swan hides*.

The forgotten exponential tail-bound, only fools and star-crossed lovers are sub-Gaussian.

## Comrades in Uniform Convergence

Oh Golden Star on Crimson sheet,
what saw ye Vladimir Vapnik and Alexey Chervonenkis?
The **Hammer** to shatter each set,
and the **Sickle** to harvest
each grain of **Truth?**For our comrades, uniformly we *learn quickly*, or we *learn not at all!*