

Submission Deposit and Offer Adjugation.

The Project is: **enabling formal** Software on **Large Language Models** on a **Conversational Server** as finding a **Swindles Engine** as in the next phrase: link as **Proverbial Parsed Litterature and the DSM5** - Diagnostic and Statistical Manual of Mental Disorders.

The Participatory action from me is an Appeal **against** the Allan Memorial, through **collective evidence** (me and procedure, with **funding of Mission Bon Accueil and disproportionate body and members handicap as with me**) and the design of a **Server to dispose on a win win and hygiene**.

Nature of the Problem: determinating parameter ϑ in the probability distribution function $f(x \mid \vartheta)$ as unknown. Belonging to an Interval Ω in $\mathbb{R}$. (observed values in sample). We estimate ϑ . Comparative Estimator and relation to this document. An objective is for me is to proceed. Introducing the Applied Mathematics department. The Agency is for a Scrabble where the Server has a proposition of logical consequence from Rules and Premisses: an *épithète* and sets the objective of Agency for the Appeal as determined from developement. Dijkstra's algorithm is an algorithm for finding the **shortest paths** between **nodes** in a weighted graph, which may represent, for example, a road **network**. In Psychiatry we have an Assistant preparing Swindles for the Server. The Openedness of Calculation is from German Language. The Context defines Pointers in Code Sentence and Memory with String Theory as a Widget.

To make Software as Resuming Authority for Variables and Server use. The Abstraction and learning a number of things to gain Range of Activity. (Openedness of Activity). Insuring the Value of Inference where **image** is parallel (Copied from Me as accounted in English Logical File by Optical Character Recognition and common to the **DSM** Diagnostic and Statistical Manual of Mental Disorders as Selection in Copy and Paste from Domain to Network's Range.). The domain is seen in: **Broadcasting as Shift for Investment** here attached.

The **Forwarding function (at Submission)** $f : X \rightarrow Y$, with X resuming from Y , as a cyber secure and Network Hardware (this is to buy Hardware as a Conclusion of **parallel Images in Range**: defined as **Cognitive Reserve**). The Submission is defined from **Clauses**. The Contexted Mobile Agent (Healthcare specialists) sets Pointers in Domain as **DSM** Diagnostic and Statistical Manual of Mental Disorders **tags** and defines Wireless and Continuity. The **User Interface** is explanatory for the Commissioner by Optical network at Screen from Domain: setting Peace of Mind in Range. These are Logical programming files with Optical Recognition of Clauses. This is known as **Dynamic Binding Logistics**. The Scaling is by Local Area Network. One explores Switches Routers and Edge Platforms at **Cloud Local Area Network** and wireless **Widgets** as service from Optical Character Recognition.

Also called: Up Level of Network and the object is to use the Server at Widget. (Bandwith and Latency as Native with Selective Copying and Extensibility in **Region and Time Intervals**). The **Pointers** come from enhancing parsing and grammar of logical files with rules and predicates with attribute in Clauses. **String Theory** comes from One Shot Data at definition of Object with Extension. The **range of Object** definition is to have a **Proof Procedure** (see the logical file as a suite of Rules and Unification of Rules at

Backtracking Search from Convex Set by Knowledge). **The Object of Parsing is in Allan's Compensation document.** The **Data Swing** is explained with lack of seasonality but with periodical Rule specification. (The Psychiatrists lead discussion on telephone and not paper.). The **Suite by parameter i** in Documents is **Exercise Trading from Copy in Server from Domain by Optical Character Recognition and relate to Attributes onto Trade Index.** Full measurement for Screen.

The Range is known as Experimental Design. The Healthcare Excellence Canada training is at fundament of the Cloud and Software proposal for the Server and Rule exploitation and Proof and ISO Norms. By the Widget we have an integrity of Body and we may **exploit the Server**. This is Connectivity. Methods by Sequences Series on Limits of Metric Spaces defining Continuity of forwarding function. **Variables** are defined on a Metric Space and represent Roots at Domain. From these we define **Compensation at Range**. Differential Geometry and Marginality. Also seen at Paste and Copy on Report by Rules: Quality and Safety Stickers by Agency from a program called Assitant in Day to Day Psychiatry and **use of Server**. See: Expectation and Sale of the Enterprise at Clauses on Initial Executive File.

Expectation and Sale of Enterprise.

Object of the **Premisse: One Sided and Continous Two Sided Limits as a Point Study.** By **Point** we define a Cache at Border Limit and Cost of the Premisse.

The **Advisor**: is classified from the Salon de Cyber Sécurité: with Conformity of Access Right and Verification: with Induction and Covering of Reviews as new Knowledge Translator in regard to Scientific Papers. Below second parabola is discrete. The second parabola is of discrete selection: $E(X) = \sum_x xf(x)$ in centre of Gravitation

$$y_i, f_i(9) = \int_{-\infty}^{\infty} xf(x)dx. \text{ Exemple: } E(\sqrt{x}), \text{ and } E(Y) = \int_0^1 (\sqrt{x} \cdot 2x) = \frac{4}{5}, \text{ Exemple: Expectation}$$

$$\text{of } D \text{ (a Domain)} f(x) = 2x. f(x, y) = \begin{cases} 1 \text{ on } S \\ 0 \text{ otherwise} \end{cases},$$

$$E(X^2 + Y^2) \mid_{\mathbb{R}^2} = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} (x^2 + y^2) f(x, y) dx dy = \int_0^1 \int_0^1 (x^2 + y^2) dx dy = \frac{2}{3}.$$

At **Owner** $E(aX + b) : (aE(X) + b)$. If $\Pr(X \geq a) = 1$ (that there is a bound $b_i \rightarrow E(X) \geq a$). **The Sale corrects** $E(X_1 + X_2 + \dots + X_n) = E(X_1) + \dots + E(X_n)$, The sampling is without replacement: $?E(X)$. The p is the number of Red Balls: with n balls selected without

replacement: $X = nb$ of selected Red Balls. $\left\{ \begin{array}{l} \Pr(X_i = 1) = p \\ \Pr(X_i = 0) = 1 - p \end{array} \right\}$ is a marginal

Distribution of each X_i . $E(X_i) = 1 \cdot p + 0 \cdot (1 - p) = p$, as $X_1 + \dots + X_n$ is the total number of Red Balls selected: $\sum E(X_i) = np = E(X_1 + \dots + X_n)$. (at the Casino).

If $p = \frac{1}{n}$ then we have the match maker as sampling without replacement: Replacement and No Replacement: same μ as the Binomial Distribution:

$$E(X) = E\left(\sum_i X_i\right) = np = \sum_{x=0}^n x C_{n,x} p^x (1-p)^{n-x}.$$

Expectation Products $E(\prod X_i) = \prod E(X_i)$, $E(X_1^2(X_2 - 4X_3)^2)$ as polynomial by Speaking

Expectation of Non Negative Discrete Distributions: $X \in \mathbb{N}$ minimal norm and

$$E(X) = \sum_{n=0}^{\infty} n \Pr(X = n) = \sum_{n=0}^{\infty} n \Pr(X = n). \text{ See } \sum_{n=0}^{\infty} n \Pr(X = n) \text{ as Statistics Canada and}$$

$$\sum_{n=0}^{\infty} n \Pr(X = n) \text{ from Bureau de Statistiques du Canada.}$$

$$\Pr(X = 1) \quad \Pr(X = 2) \quad \Pr(X = 2)$$

$$\Pr(X = 2) \quad \Pr(X = 2) \quad \text{horizontal vertical and Sums.}$$

$$\Pr(X = 2)$$

$$\sum_{n=1}^{\infty} n \Pr(X = n) = \sum_{n=1}^{\infty} \Pr(X \geq n) = E(X) \text{ a Bound. Bound and number of Trials: repeatedly}$$

tries to be successful. The success is the $p \in (0, 1)$ and failure $(1 - p)$.

$\Pr(X \geq n) = \Pr(X = n) + \Pr(X = n + 1) + \Pr(X = n + 2) + \dots \Pr(X = \infty)$. It means no success q happened as q^{n-1} before the One required Trial. $\Pr(X \geq n) = q^{n-1}$.

$$E(X) + 1 + q + q^2 + q^3 \dots = \frac{1}{1-q} = \frac{1}{p}.$$

$$E((X - \mu)^2) = E((X - E(X))^2) = E((X - \sum_{n=0}^{\infty} n \Pr(X = n)))^2 \text{ failure of } (1 - p) = q \text{ until}$$

success pf $p = 1 - q$. Gravitational Half line as a Discrete Distribution. (Variance). $E(X^k)$ is the k th Moment as a 2 or 3 Power Polynomial. $E(X^1) = \mu$ of X called the 1 st Moment. If $\exists a, b \in \mathbb{R}$ such that $\Pr(a \leq X \leq b)$ then there is $\Pr(= 1)$ bounded and Moments of X exist. If $\exists E(X^k)$ then $\exists E(X^{j < k})$.

The Central Moments: $\exists E(X) = \mu$ then $E((X - \mu)^k) = 0$ called central Moment about the mean. If the Distribution of X is symmetric with respect to μ , then $E((X - \mu)^k) = 0$ (symetry). Moment generating functions $\psi(t) = E(e^{tX})$ and $\psi'(0) = (\frac{d}{dt} E(e^{tX}))_{t=0} = E((\frac{d}{dt} e^{tX})_{t=0}) = E(X)$.

The Median m : as Centre of Gravitation and Distributions): point $x \in \mathbb{R}$ and $m \in \mathbb{R}$, on the Distribution of x as $\Pr(X \geq m)$, $\Pr(X \geq m) \geq \frac{1}{2}$, $\Pr(X \leq m) \geq \frac{1}{2}$. **The Sale is by Discrete dsitribution where Median si not unique:**

$$\left\| \begin{array}{ll} \Pr(X = 1) = 0, 1 & \Pr(X = 2) = 0, 4 \\ \Pr(X = 3) = 0, 3 & \Pr(X = 4) = 0, 2 \end{array} \right\| \text{ where Median is as interval } 2 \leq m \leq 3. \text{ The}$$

$$\text{Governorate } f(x) = \begin{bmatrix} 4x^3 & 0 < x < 1 \\ 0 & \text{other} \end{bmatrix} \text{ and } \int_0^{\infty} 4x^3 dx = \int_m^1 4x^3 dx = \frac{1}{2}. \text{ Here } m \text{ is a median}$$

$$\text{as } \frac{1}{\sqrt[4]{2}}.$$

$$\text{The Median at an interval. } f(x) = \left\{ \begin{array}{ll} \frac{1}{2} & 0 \leq x \leq 1 \\ 1 & 2.5 \leq x \leq 3 \\ 0 & \text{other} \end{array} \right\}$$

$$\Pr(X \leq m) = \Pr(X \geq m) = \frac{1}{2}. \text{ at } 1 \leq m \leq 2.5 \text{ as } m \in [1, 2.5].$$

Selection from Distribution: Panel PharmAsia. The Mean Squared Error and Cost Function: $E([X - d] \downarrow \min. \text{ of Prediction } d)$.

$$E[(X - d)^2] = E(X^2 - 2dX + d^2) = E(X^2) - 2d\mu + d^2 \text{ when } d = \mu \text{ we have the Minimum}$$

(predicated value of d). $E(|X - d|) \downarrow$ Minimum?: **Mean Absolute Error** (End of Interval) of Predication when $d = \text{Median } (m)$. Here $E(|X - m|) \leq E(|X - d|)$ when $d \in \mathbb{R}$ (any number). (equality $d = m$) (choice of Median). Marge de crédit: $E[(X - d)^2] \& E[|X - d|]$. (BMO).

Credit Line and Predicting a Value of a Discrete Random Variable. $\frac{1}{6} = p$ of X as $0, 1, \dots, 7$. **Determine Prediction** of $E[(X - d)^2] \& E[|X - d|]$ both Minimum:

$E(X) = \frac{1}{6}(1 + \dots + 7) = 3$. $E[(X - d)^2] \downarrow$ when $d = 3$. The $E[|X - d|] = m \in [2, 3]$ for

Mediane of given distribution (minimized for this value). **Conditional Expectation**

$X \& Y \rightarrow f(x, y)$ joint pdf. $f_1(x)$ marginal pdf of X , $\forall x \in \mathbb{R}$ such that $f_1(x) > 0$, Let $g(y | x)$ a conditional pdf of Y given $X = x$. The conditional expectation of Y given X is $E(Y | X)$.

$E(Y | x) = \int_{-\infty}^{\infty} y \cdot g(y | x) dy$, $\forall x \in \mathbb{R}$, or $\sum_y y g(y | x)$. (the mean of the conditional

distribution of Y given $X = x$). Error at $F(b) - F(a)$. We say $E(Y | X)$ is a function of Random Variable X . X is a random Value with its own distribution derived from distribution of X . Show $E(E(Y | X)) = E(Y)$. Proof by Bayesian Theorem: $g(y | x) = \frac{f(x, y)}{f_1(x)}$ with

$$E(E(Y | X)) = \int_{-\infty}^{\infty} E(Y | x) f_1(x) dx = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} y g(y | x) f_1(x) dy dx = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} y f(x, y) dy dx = E(Y).$$

QED.

Choosing Points from Uniform Opposite Bigotomy (Sex) Distribution: an Example: $X \in [0; 1]$: X observed at $x \in (0; 1)$ and point Y is chosen in accordance with Men Point) a uniform distribution on $(x, 1)$. $E(Y)$, $E(E(Y | X))$ as a Uniform Moratorium.

$\forall x \in (0; 1)$, $E(Y | x)$, mid-point $\frac{1}{2}(x + 1)$ of $(x, 1)$. $E(Y | X) = \frac{1}{2}(X + 1)$.

$$E(Y) = E(E(Y | X)) = \frac{1}{2}[E(X) + 1] = \frac{1}{2}(\frac{1}{2} + 1) = \frac{3}{4}.$$

Prediction : Given X predict $Y \rightarrow E((X - \partial(X))^2)$. The **Predicted Value** as $\partial(X)$ so chosen as $do(X)$. $E[(Y - \partial(x))^2] = E(E[(Y - \partial(X))^2 | x])$. $do(X) = E(Y | X)$. Mean Square Error.

Predicting value of an Observation: Population π_1 and π_2 ,

$$g_1(y) = \begin{cases} 1 & y \in [0; 1] \\ 0 & \text{else} \end{cases} \text{ on } \pi_1. \text{ Observations on } \pi_2 \text{ pdf of } Y \text{ as}$$

$$g_2(y) = \begin{cases} 2y & \text{on } y \in [0; 1] \\ 0 & \text{else} \end{cases}. \text{ The Population of } Y \text{ is not known ? The Predicted Value}$$

(2nd root) $\downarrow E((Y - do(X))^2)$ of Y , minimal value of the Mean Square Error. Marginal pdf of Y is $g(y) = \frac{1}{2}[g_1(y) + g_2(y)]$, $\forall y \in \mathbb{R}$.

Sample Mean. Markov Principle and Droit de Principauté: inequalities:

$\Pr(X \geq 0) = 1$ then $\forall t > 0$, $\Pr(X \geq t) \leq \frac{E(X)}{t} = \frac{1}{t}E(X) = \frac{1}{t}\mu$. **Casino Chambre de Commerce as Median** (see median above). **Chebyshev** $Var(X)$ exists, $t > 0$.

$\Pr(|X - E(X)| \geq t) \leq \frac{Var(X)}{t^2} = \frac{1}{t^2}E((X - \mu)^2) = \frac{\sigma^2}{t^2}$. Here $Var(X) = E((X - \mu)^2)$. (Mean absolute Error of Prediction). **Expectation of Non Negative discrete Distribution.**

def: **Sample Mean:** $\bar{X}_n = \frac{1}{n}(X_1 + \dots + X_n)$, the distribution has μ and σ^2 .

$$E[(X - \bar{X}_n)^2] = \sigma^2(X) = \frac{1}{n^2}E[(X - E(\sum_i X_i))^2] = \frac{1}{n^2} \cdot n\sigma^2 = \frac{\sigma^2}{n}.$$

(Calculation of the Mean and Variance for a Sample of n observations. English at Experiment: The Mean of $\bar{X}_n$, $E(X_i)$ is equal to the Mean of Observations from which the Random Sample has been drawn from: but the Variance $E[(X - \bar{X}_n)^2] = Var(\bar{X}_n)$ is only $\frac{1}{n}$ times the Variance of that distribution of the Sample. We say: The Sample Mean $\bar{X}_n$ is more

likely to be chosen from μ that the value of just a single observation: X_i from the given Sample Distribution. From the Chebyshev's inequality we have:

$$\Pr(|X - E(X)| \geq t) \leq \frac{Var(X)}{t^2} = \frac{E[(X - \bar{X}_n)^2]}{t^2} \text{ applied to } \bar{X}_n. \text{ Since } \mu = E(\bar{X}_n),$$

$$Var(\bar{X}_n) = \frac{1}{n^2} E\left[\left(X - E\left(\sum_i X_i\right)\right)^2\right] = \frac{\sigma^2}{n}. \text{ Here from } t > 0, \Pr(|\bar{X}_n - \mu| \geq t) \leq \frac{\sigma^2}{nt^2}.$$