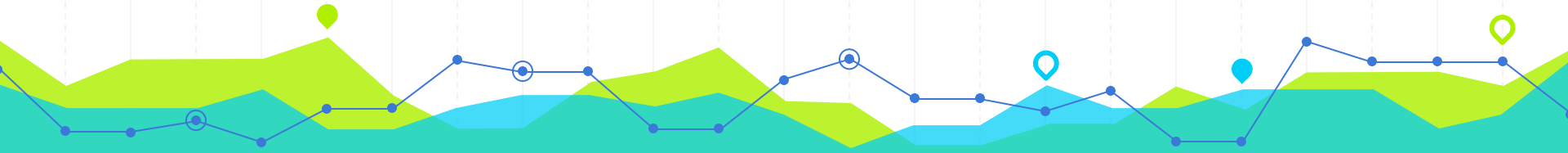


Nova Credit: Global Credit Score Prediction

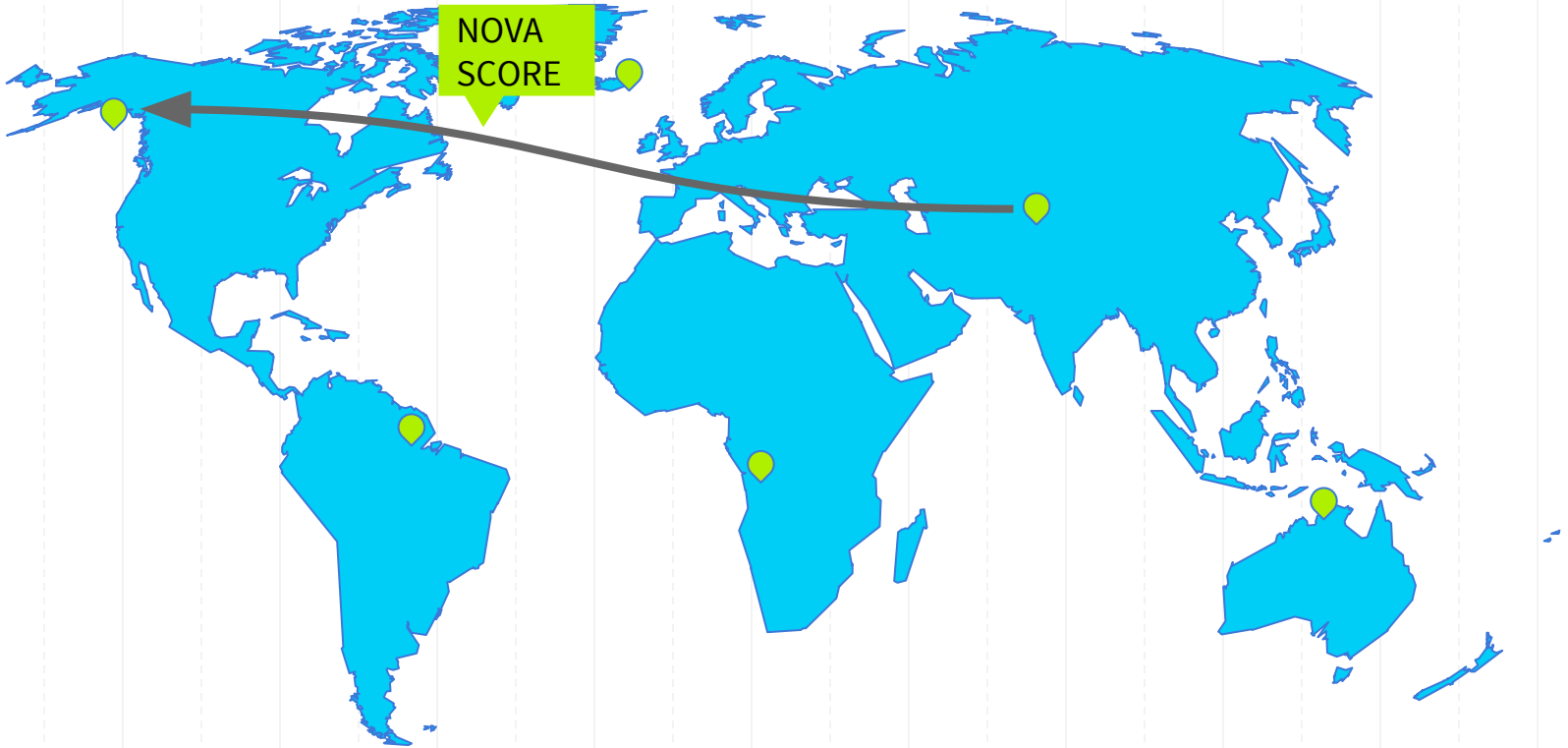
PROBLEM OVERVIEW

Individuals have credit scores and histories in their home country.

When they immigrate, they start over with no credit history.

GLOBAL CREDIT SCORE

What if we could make a **global credit score** that follows you anywhere?



DATA 1

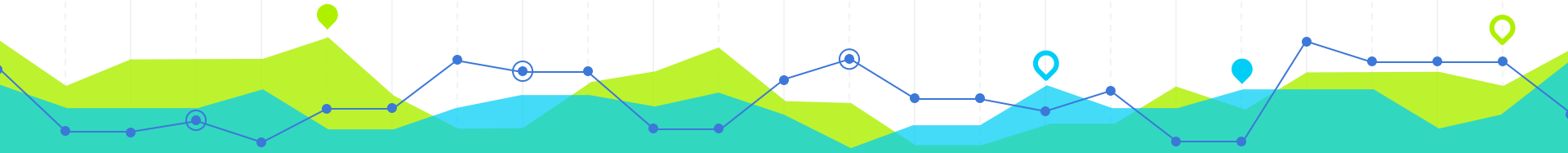
DATA OVERVIEW

Nova Dataset

- 2 countries: India (1 obs) and Mexico (~20 unique obs)
- 40+ characteristics per observation
- HDLSS data

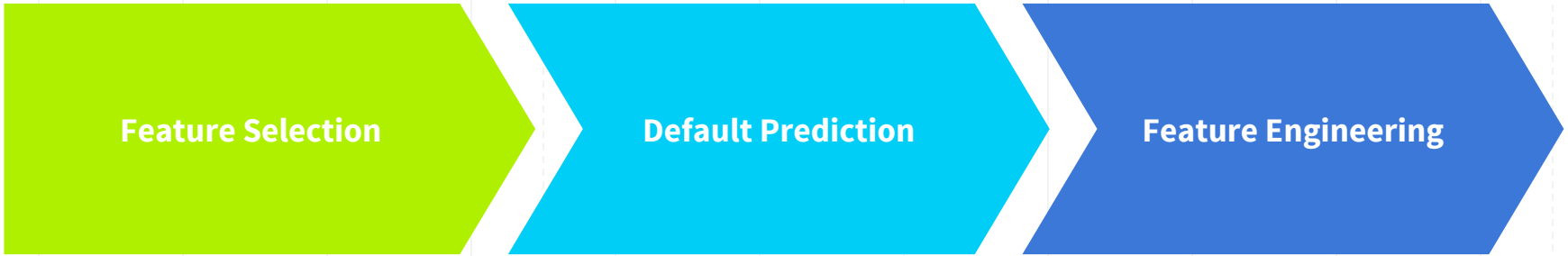
External Dataset

- LendingClub



ANALYSIS 2

ROADMAP


Feature Selection
Default Prediction
Feature Engineering

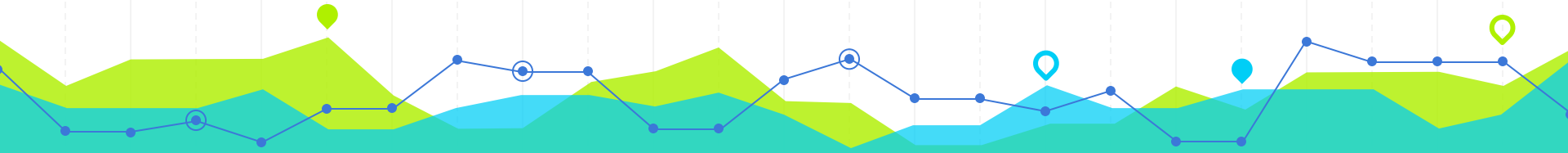
REDUCE FEATURE DIMENSIONALITY

FEATURE 1
Ex: Principal borrowed

FEATURE 2
Ex: Monthly Payment

FEATURE 3
Ex: Prior loans funded

FEATURE 4
Ex: Prior loan default

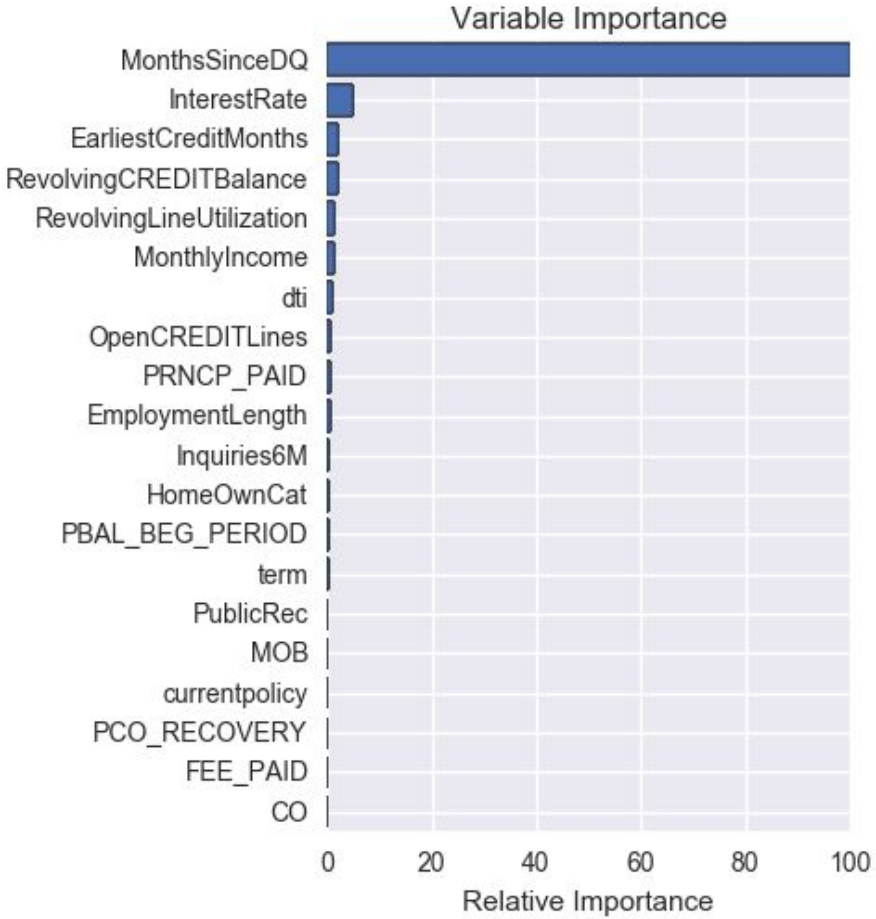


DELIVERABLE 3

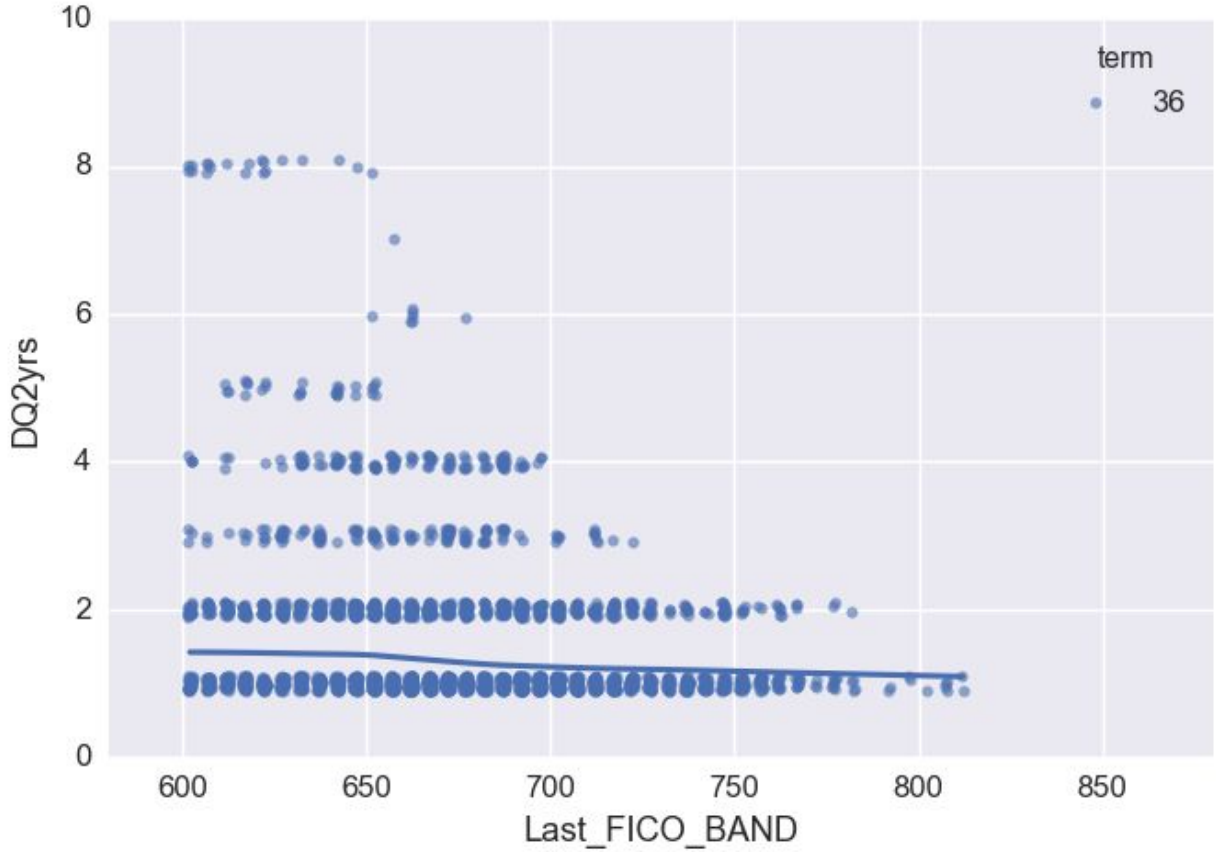
FEATURE CORRELATIONS

INT_PAID	PBAL_BEG_PERIOD	0.887087
DUE_AMT	PBAL_BEG_PERIOD	0.550330
RECEIVED_AMT	PRNCP_PAID	0.996107
PBAL_END_PERIOD	PBAL_BEG_PERIOD	0.985646
	INT_PAID	0.871666
COAMT	CO	0.782082
InterestRate	INT_PAID	0.579858
MONTHLYCONTRACTAMT	PBAL_BEG_PERIOD	0.769767
	INT_PAID	0.696530
	DUE_AMT	0.714424
	PBAL_END_PERIOD	0.741511
TotalCREDITLines	OpenCREDITLines	0.684636
MonthsSinceLastRec	PublicRec	0.920398
APPL_FICO_BAND	InterestRate	-0.699091
	RevolvingLineUtilization	-0.566024
PCO_RECOVERY	COAMT	0.558185
PCO_COLLECTION_FEE	PCO_RECOVERY	0.769920

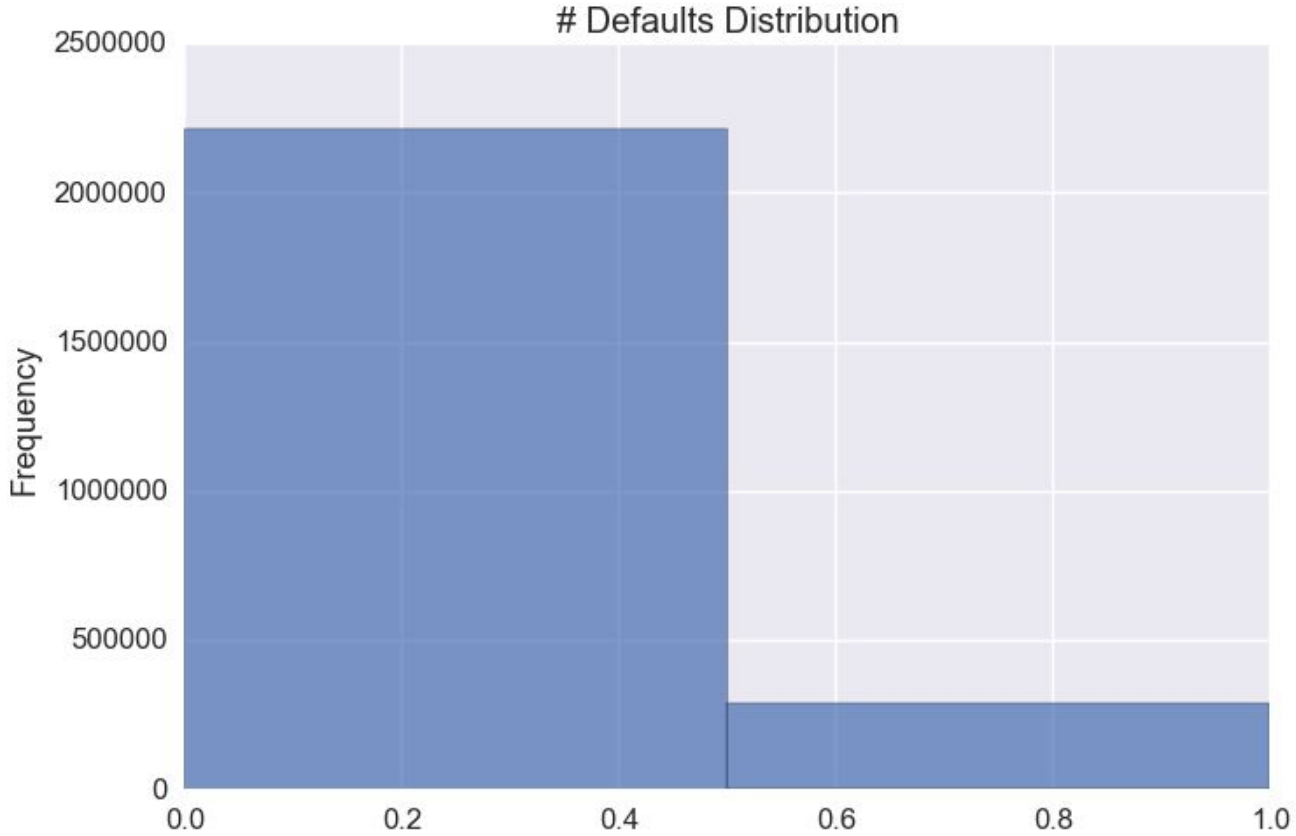
DETERMINING DEFAULT STATUS: FEATURE BREAKDOWN



FICO and Default Relationship



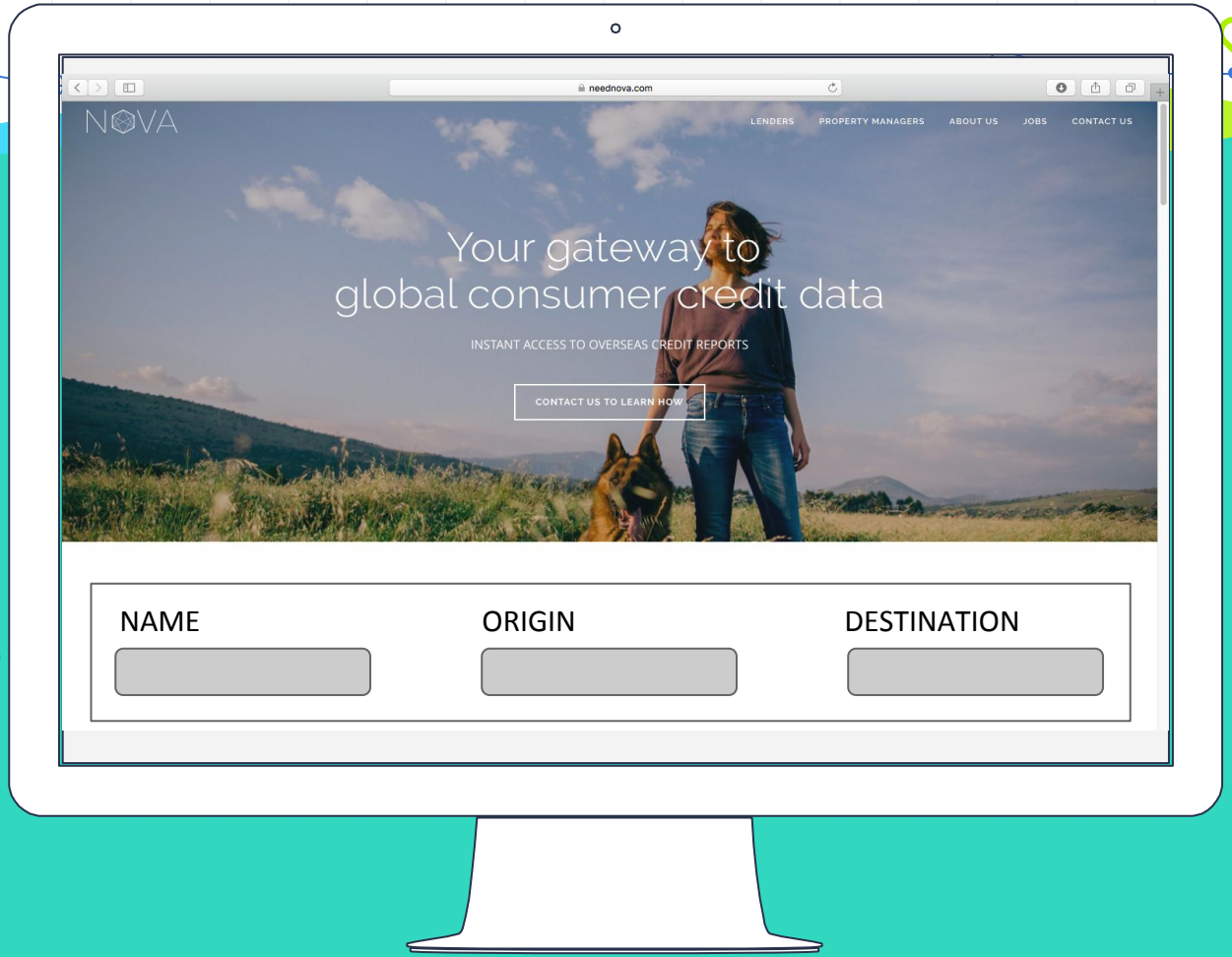
DEFAULT PREDICTION

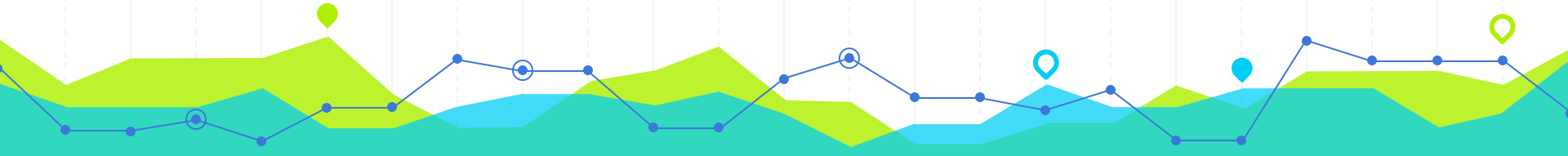


- Current prediction accuracy over 95%

DEFAULT PROBABILITY CALCULATOR

Input name, origin country and destination country. Voila! Customers buy access to this tool.



THANKS!

Any questions?