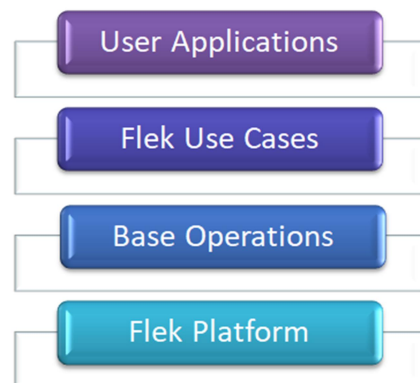


Flek Ecosystem

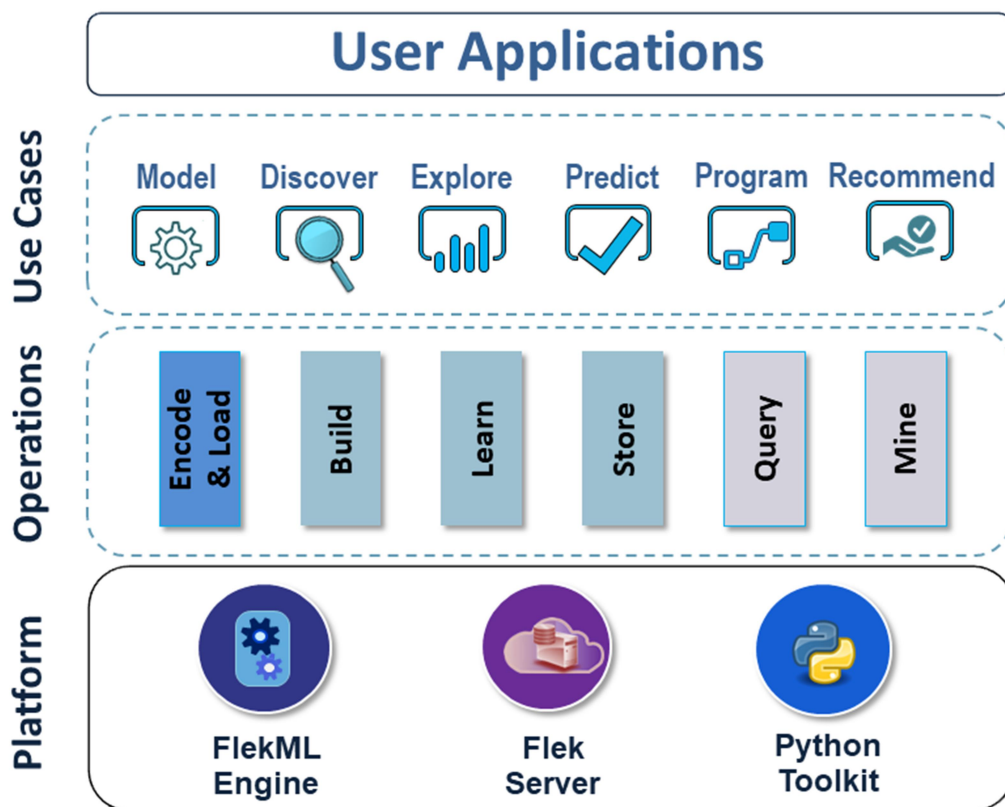
The ecosystem of the Flek Machine unifies AI analytics, probabilistic modeling and programming into one integrated framework. Flek offers a layered design upon which organizations can develop their probabilistic applications. Usually, users mix different operations and use cases within the ecosystem to tackle various AI problems they are facing.

What makes the Flek framework unique is that the unified model running in the engine can be used by multiple AI-enabled applications all at the same time; while also serving various AI citizens in their exploratory and predictive analytics activities.



Ecosystem

The Flek Machine framework is simple. The 2 main layers *Operations* and *Use Cases* are sandwiched in the middle between the User Applications and the 3 Platform components: FlekML, Flek Server and Python Toolkit.



PLATFORM (main components)

- **FlekML.** The machine learning engine that drives the ecosystem. Internally, it runs the core Probability Machine.
- **Flek Server.** Allows users to run in: Standalone, Local Server or Remote Server modes
- **Python Toolkit.** Includes the suite API to run the base Operations that interface with the engine and server as well as those needed to carry on the different Use Cases.



USE CASES (key features)

- **Model.** Flek models are made of Nuggets built by the core engine and then stored into memory, files or a database. FlekML allows users to capture complex events and auto learn semi-supervised models that are self-adjusting with new data.
- **Discover.** Flek comes with auto discovery and mining algorithms that scan the model and extract interesting associations, rules, relations, anomalies or causal relationships
- **Explore.** Flek makes it easy to query and mine Nuggets as well as search for interesting probability patterns in an interactive mode. It also provides Python components to tabulate & visualize the joint & conditional probabilities between variables as well as trace and validate results.
- **Predict.** Prediction using Flek is bi-directional. That is, users can run both forward and backward prediction and classification tasks at the same time. In addition to single variable target, predictions can run using multi-variable or multi-feature targets. All this without the need to retrain or change the model while doing these different activities.
- **Recommend.** Recommendation in Flek utilizes probabilistic algorithms which make it easy to combine both profile and item based techniques at the same time.
- **Program.** The Python Toolkit provides the building blocks needed to develop advanced probabilistic programs and applications. Specifically, it offers dedicated components to query, mine, discover and make predictions. It also provides specialized APIs to work with probabilities algorithmically (APP).



About GoFlek

Revolutionizing how businesses tackle complex AI endeavors, GoFlek offers the Flek Machine – a unified framework for AI Analytics.

The company was founded in 2017 by a team who are dedicated to this vision. Their goal is to develop the next generation of AI toolset that allows AI citizens to build complex models, run both exploratory and predictive analytics activities as well as develop advanced probabilistic programs that can be deployed on premise or over the cloud.

For more information please download *Flek Pipeline.pdf* and *Flek Architecture.pdf* from our site: www.goflek.com/downloads

