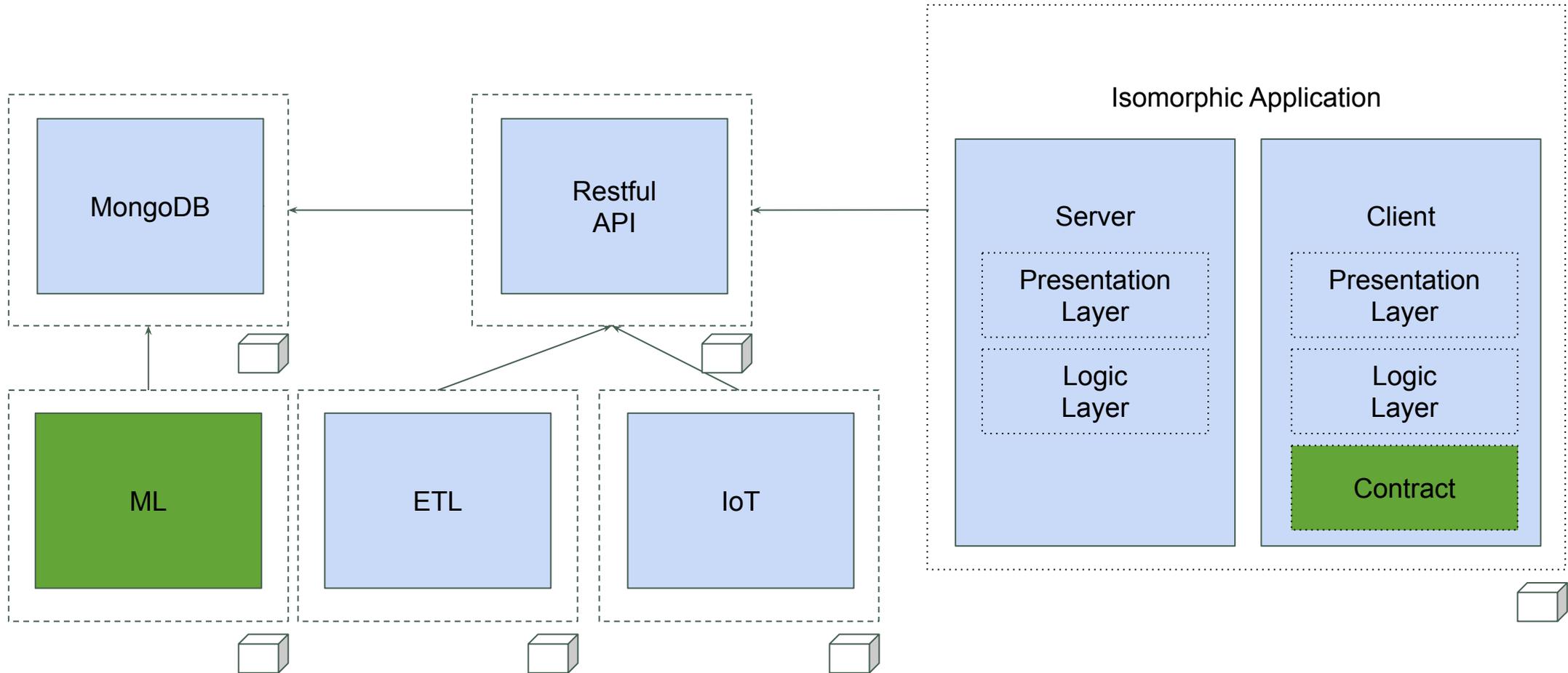# require('blockchain')
require('machineLearning')

```
const speaker = {
  name: "Jaime Garcia Diaz",
  job: "Software Engineer",
  team: "Groupon.Coupons",
}
```

Architecture

Some data?

http://www.modulecounts.com/

https://nodejs.org/metrics/

https://www.cnbc.com/2020/01/17/blockchain-is-the-most-in-demand-job-skill-in-2020-says-linkedin.html

https://www.businessinsider.com/most-popular-programming-languages-github-2019-11

http://pypl.github.io/PYPL.html

Blockchain (Distributed, Decentralized, Public Ledger.)

- Blocks store information about transactions like the date, time, and amount.

- Blocks store information about who is participating in the transactions using a "digital signature," sort of like a username.

- Blocks store a unique code called a "hash" that distinguishes them from other blocks.

"If you have a strong leader, choose centralized. But if you have good managers, then choose decentralized and if you have a lot of individual contributors, then choose distributed."

https://www.investopedia.com/terms/b/blockchain.asp
https://medium.com/delta-exchange/centralized-vs-decentralized-vs-distributed-41d92d463868

Ethereum (Global, Open-Source Platform for Decentralized Applications)

- Ethereum has a native cryptocurrency called Ether (ETH)

- Ethereum is programmable, which means that developers can use it to build new kinds of applications (DAPPS)

- June 2016: The DAO hack happens: $50 million worth of Ether, which was 15% of the total Ether in circulation back at the time.

https://ethereum.org/
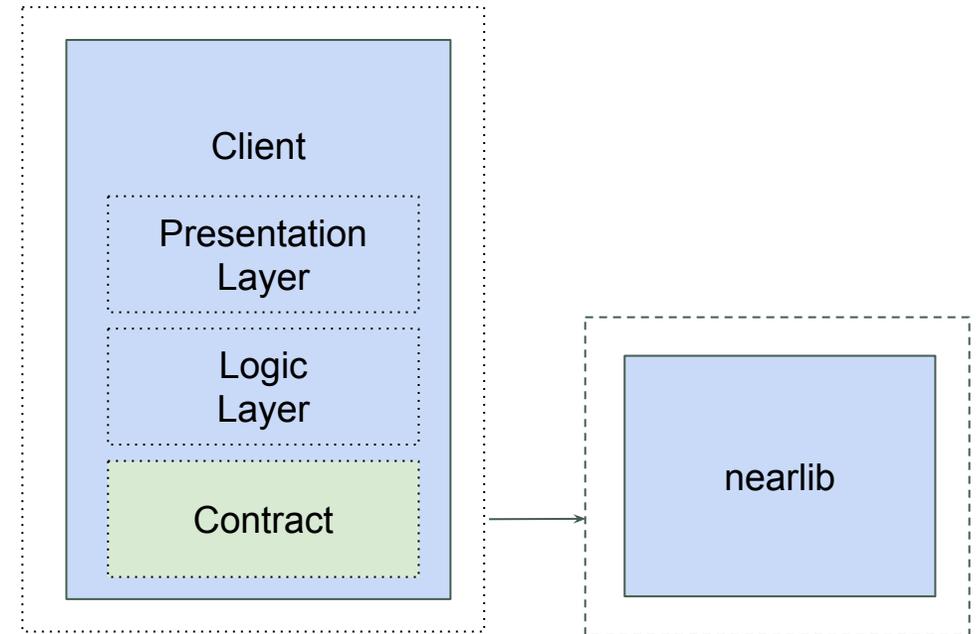https://blockgeeks.com/guides/ethereum/

Smart Contract

- Any program that runs on the Ethereum Virtual Machine (EVM) is commonly referred to as a "smart contract".

- Solidity - The most popular language on Ethereum, inspired by C++, Python and **JavaScript**.

- ERC-20 Token Standard [link]

Near Protocol

- Nearlib is a JavaScript library for development of DApps on NEAR platform.

- ERC-20 Token Standard

```
near.loadContract(nearConfig.contractName, {
    viewMethods: [
        "totalSupply", "balanceOf", "allowance"
    ],
    changeMethods: [
        "init", "transfer", "approve", "transferFrom"
    ]
});
```

Machine Learning (TensorFlow.js)

-   TensorFlow.js is an open-source hardware-accelerated JavaScript library for training and deploying machine learning models.

-   The central unit of data in TensorFlow.js is the tf.Tensor: a set of values shaped into an array of one or more dimensions. tf.Tensors are very similar to multidimensional arrays.

-   In machine learning, a model is a function with learnable parameters that maps an input to an output.

https://github.com/tensorflow/tfjs

Machine Learning (brain.js)

- Brain.js performs computations using GPU and gracefully fallback to pure JavaScript when GPU is not available.

- Brain.js provided multiple neural network implementations as different neural nets can be trained to do different things well.

https://github.com/BrainJS/brain.js#brainjs
https://brain.js.org/

Machine Learning (Limdu.js)

```javascript
// Multi-label classification is the problem of finding a model that maps inputs x
to binary vectors y

const TextClassifier = limdu.classifiers.multilabel.BinaryRelevance.bind(0, {
    binaryClassifierType: limdu.classifiers.Winnow.bind(0, {retrain_count: 10})
  })

const classifier = new limdu.classifiers.EnhancedClassifier({
    classifierType: TextClassifier,
  })

classifier.trainBatch(cleanedData)

classifier.classify(guess)
```

[thanks]

Jaime Garcia Diaz <jgarciadiaz@groupon.com>
github: jgarciadiaz