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Management

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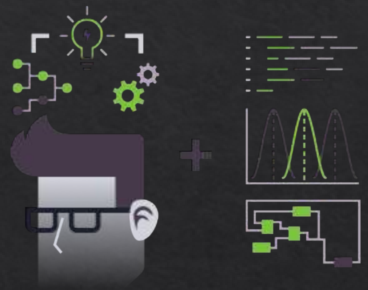
Building BRAINs for autonomous systems

Demands a fundamentally different approach

1. A technique that can combine human and machine intelligence



2. Simulation integration and scalability for training

bonsai

3. of neural networks and DRL algorithm automated generation and management

4. A runtime to deploy and scale your models in the real world

Where will Deep Reinforcement Learning outperform?

- **Look for Extreme Robustness Requirements**: The existing control system or optimization engine requires many different settings to work well under all conditions.

  Example: Motion control system makers must tune PID controllers for each machine model, machine type and factory conditions. The tuning process takes time and there is a huge backlog.

- **Look for Multiple or Changing Optimization Goals**: The existing control system struggles to optimize toward multiple goals well or the optimization goals change based on environmental conditions.

  Example: A smart building system must control temperature but also manage energy costs and air quality. When occupancy is high air quality is more of a factor, when outdoor temperatures are extreme comfort is more of a factor, when energy costs more efficiency matters more.

- **Look for Operator Overload:** The operators cannot process this many variables in real time while controlling the system or the engineers need help making decisions across scenarios.

  Example: A manufacturing process surfaces up to 900 different alerts and errors that operators must process in real time to decide the optimal speed of the machine during the operation.