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High Performance Neuromorphic Computing

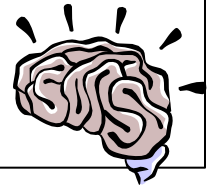
Problem (Overview)

Current computing systems perform poorly at a variety of task that humans, primates and other animals excel at. These include image recognition, language processing, and learning.

Approach being used:

- Utilize supercomputing clusters for massive brain-scale simulations.
- Develop special purpose highly parallel chips for neural simulations.

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Solution (Overview)

Develop computing systems that mimic the processes taking place in brains. Since the brain has a very large number of neurons that are highly interconnected, simulating brains is highly challenging.

Potential Impact/Results

- Smarter everyday use products.
- Smarter robots.
- Supercomputers with far more powerful problem solving capabilities.

