



## **TL;DR:**

### **What makes Arcee AI different from other GenAI technology**

- While other companies focused on LLMs, Arcee AI innovated the development of custom, domain-specific Small Language Models (SLMs) – creating SLMs that are highly accurate and extremely compute-efficient.
- When Arcee AI's models are put in production for enterprise clients, they outperform traditional LLMs from providers including OpenAI and Anthropic.
- Arcee AI has pioneered and productized two major leaps forward in optimizing LLM training: Model Merging and Spectrum.
  - Model Merging is taking an open source LLM that you've trained on your data, then blending or "merging" it with another open source LLM. The merged model has the "brains" of both input LLMs, including your domain-specific data, but the size and inference cost of just one input model.
  - Spectrum is a method for efficiently training LLMs by targeting specific layer modules within the model based on their signal-to-noise ratio (SNR), while keeping other layers frozen. It optimizes training time up to 42% and reduces catastrophic forgetting, without any performance degradation.
- Arcee AI customers get excited by the high quality of the SLMs, by the dramatic savings on compute and deployment costs, and by the ease-of-use of the end-to-end platform for training and deploying the SLMs.
- Amidst growing concerns over the carbon footprint of GenAI, Arcee AI offers a solution that uses a fraction of the energy of traditional LLMs (thanks to leveraging already-trained open source models, which they merge together via their process that uses minimal compute).