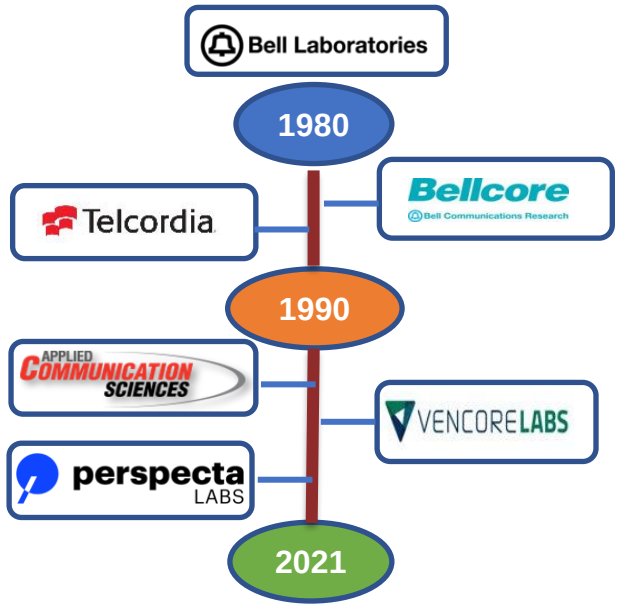
Company Background



- **400+ scientists & engineers**
- **55% hold Ph.D.'s**
- **50% hold one or more patents**
- **75% hold government clearances**
- **Corporate Headquarters**: 150 Mount Airy Road, Basking Ridge NJ
- **Peraton** is a next generation national security company with 22,000 employees serving high-consequence missions on a global scale

Capabilities

Machine Vision

- PLAiTR: The state of art solution for real-time object detection and classification systems for vehicle targets in low resolution.
- Real-time identification of **deepfake** and **forgery images** detection for robust digital news analysis.
- Synthetic data generation for producing validated synthetic data.
- A large synthetic image dataset for AI/ML algorithm training using DoD HPC.

Adversarial Machine Learning

- Large body of work in the area of adversarial ML for the image domain.
- Adversarial transformation networks (ATNs) learn to generate adversarial perturbations
- Inspect an AI and predict if it has a "Trojan"
- Perturbation framework that preserves feature constraints
- New attack models that take into account feature constraints to generate adversarial features

Natural Language Processing

- Innovative NLP solutions: devised and implemented multiple high-performance information-extraction, question-answering, and knowledgebase-population systems

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Experience

Seasoned performer on numerous relevant programs

IARPA

- Trojans in Artificial Intelligence
- Knowledge Discovery and Dissemination

DARPA

- Techniques for Machine Vision Disruption (**TMVD**)
- Probabilistic Programming for Advancing Machine Learning (**PPAML**)
- Guaranteeing AI Robustness Against Deception (**GARD**)
- Configuration Security
- Data-Driven Discovery of Models (**D^{3}M**)

SEC

- **QRADS**: Application of NLP/ML to regulatory filings

Commercial

- Clinical trial knowledgebase population for pharma
- Automated redaction of PII

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