

# Technology SOLUTIONS

## Capability Statement

### Information Technology:



**AI Technologies**



**Design Thinking**



**Environmental Engineering**



**Data-Driven Decisions**



**Agile Missions**

#### Key Differentiators:

- 27-year award-winning track record
- 100% referenceable clients
- Top-notch CPARS ratings
- Award-winning IT Innovation Lab
- Amazon AWS, IBM/Redhat, Google Cloud, & Microsoft Azure-authorized partner
- People first
- Customer-centric mission
- Harvard Business School case study

#### Recent Awards:

- Patent Award No. 17/684,592
- ACTIAC Innovation Awards Finalist (Machine Learning and Internet of Things)
- USWCC Stellar Award for Leadership, Innovation, Quality and Growth
- DoD Nunn-Perry Award
- USDA Contractor of the Year
- SBA Award for Excellence
- And many more...

#### Certifications

- CMMI for Dev. Level 3
- ISO 9001:2015 (Quality)
- ISO 20000:2011 (IT Service)
- ISO 27001:2013 (Information Security)
- DCAA-compliant audited financials
- Ability to perform classified work

#### Our Customers:



#### Contract Vehicles:

- CMS SPARC
- EPA ESO CLIN 0003
- GSA IT-70
- TEADN/DDOU (Brice Engineering, LLC)
- HHS IAAI
- USPTO BOSS (BAH)
- DHS EFSI
- bp MSA
- BSAES (DSS)
- DLA JETS (CTA with IBM)
- DIA SITE III
- USPTO IDEAI-2
- DHS TRIO (IBM)
- DHS Prism Support Services BPA
- MD CATS+
- FEMA Risk MAP (IBM)
- USPTO AGSE (Cherokee Federal)
- USPTO Trilateral

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# Technology Solutions

## Artificial Intelligence & Machine Learning

AEEC uses the open-source machine learning frameworks TensorFlow and fastText to classify images/text by specific design elements and through hybrid image and text analysis

## Storage Management

In-depth research, storage systems/services support, cost-saving solutions, enterprise storage infrastructure O&M

## Super-Computing / Connected Labs

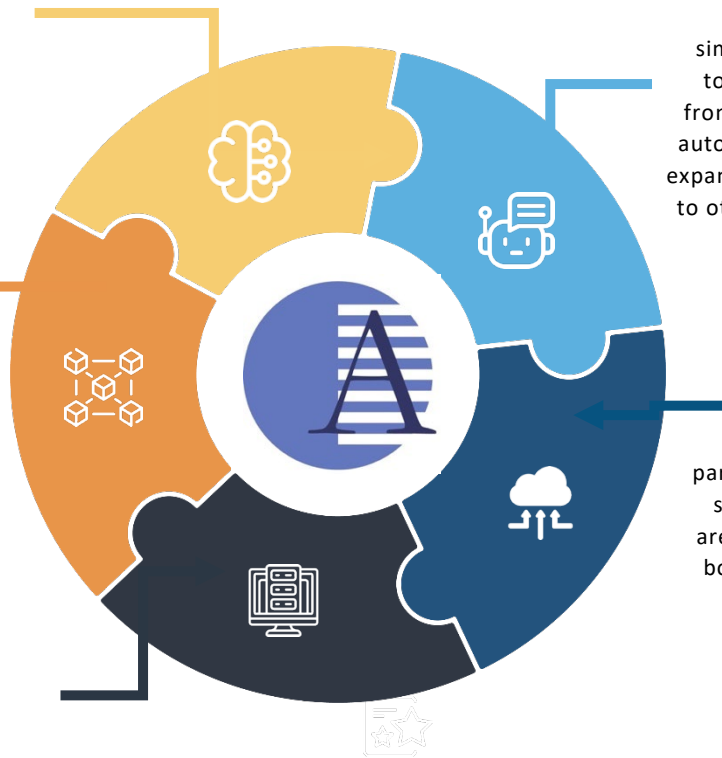
Founding member of the San Diego Supercomputer Center  
BlockLAB Learning Laboratory – <https://www.clds.info/blocklab>  
Collaborating with the Center to make advances in blockchain technology

## Chatbot

An artificial intelligence-based application/software that simulates a human response to input messages or voices from end-users. Chatbots can automate repetitive tasks and expand customer service easily to other channels and provide 24/7 support

## Cloud Partnerships (AWS/AZURE/Google/IBM)

AEEC is an authorized partner and reseller of cloud solutions. Our applications are built to run efficiently in both distributed virtual and bare-metal cloud



## Cloud Migration

Cloud Operations

Cloud Architecture

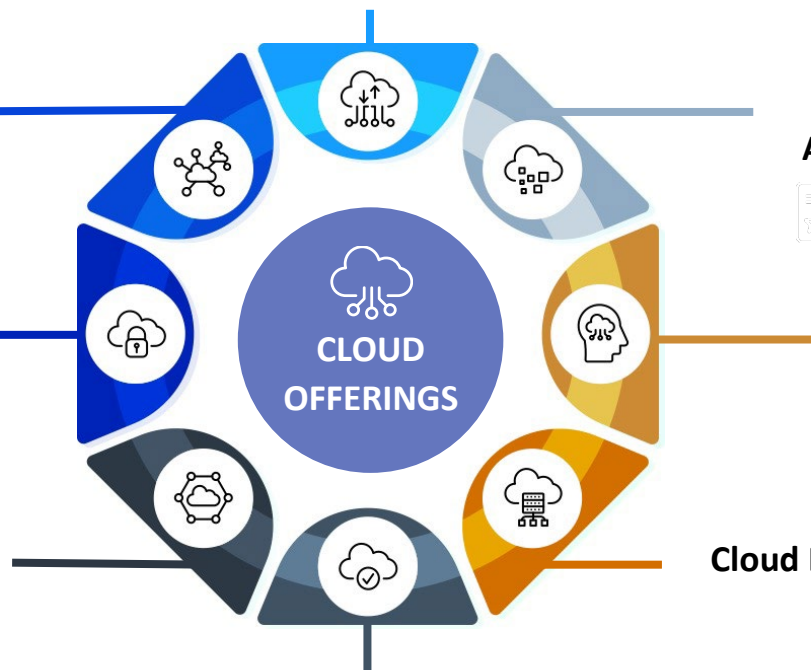
Cloud Security

Cloud Strategy

Cloud Automation

Cloud Engineering

Cloud Management



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# Environmental & Engineering

## SOLUTIONS

Proven remediation and environmental success using technology driven solutions to attain sustainability.

- Site Investigation / Closure
- System Optimization
- Soil / Groundwater Remediation
- GIS / Data Management
- Title V
- Air Modeling
- Environment Compliance
- Long Term Operating / Long Term Monitoring
- Risk Assessment and Impact Investment



### Data Acquisition, Monitoring and Control

- In-plant **SCALDA** + control systems
- **Remote IoT** sensors
- Instrumentation selection and design
- **External data sources:** river flow data from USGS, reservoir level data, US Weather Service
- **Geospatial** data analysis



### Health and Safety

- OSHA 300
  - OSHA Recordable Incident Rate **Zero** Since 2009
  - OSHA DART Incident Rate **Zero** Since 2009
- HSSE Program
  - Avetta Qualified
  - Veriforce Qualified
- **EMR 0.88**



### Technology Solution Highlights

- AEEC's **Smart Water Data Analytics** technology solution, was chosen by The Water Research Foundation (WRF) for their Leaders Innovation Forum for Technology (LIFT) program.
- Remedial Timeframe Analysis Tool providing insight into progress towards **closure of contaminated sites**



### Highlighted Contract:

The U.S Environmental Protection Agency (EPA) awarded an Environmental Services and Operations (ESO) Contract to AEEC. The ESO contract will be utilized to provide services at Superfund sites for EPA Headquarters and Regions 8, 9, 10 Support, and other Technical Assistance.

#### HIGHLIGHTED ENVIRONMENTAL AND ENGINEERING SERVICES CLIENTS:



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# Innovation LAB

## iLab Mission:

The AEEC iLab was designed to foster team-based creativity and innovative activities. It will serve as a bridge between imagination and implementation. The lab is an exciting platform that will visibly demonstrate AEEC's commitment to innovation by creating new solutions using best practices in the IT industry.

## How We Achieve Our Mission:

The AEEC iLab will showcase innovation and the capabilities of AEEC on various technologies and products. Capability components are comprised of various COTS and Open-Source products to develop unique and generic frameworks that will suit any organizational needs.



## AEEC iLab = Launch Pad

 <p><b>New Products</b></p>	<ul style="list-style-type: none"> <li>• Software</li> <li>• Web Services</li> <li>• Other</li> </ul>
 <p><b>New Services</b></p>	<ul style="list-style-type: none"> <li>• Data Analytics</li> <li>• Data Science</li> <li>• Mobile Apps</li> </ul>
 <p><b>New Enterprises</b></p>	<ul style="list-style-type: none"> <li>• Scientific</li> <li>• Commercial</li> <li>• Products</li> <li>• Services</li> </ul>
 <p><b>New Relationships within &amp; between Sectors</b></p>	<ul style="list-style-type: none"> <li>• Academia</li> <li>• Government</li> <li>• Non-Profit</li> <li>• Commercial</li> </ul>

### Blockchain Solutions:

As a founding member of the San Diego Supercomputer BlockLAB Learning Laboratory, AEEC is collaborating with researchers to make advances in blockchain technology. We recognize blockchain is not the solution for everything that many of our competitors make it out to be. Like most of AEEC's initiatives, we apply a select group of use cases to identify the practical challenges in implementing blockchain solutions and developing an implementation framework that addresses those challenges.



## Connected Labs Initiative:

AEEC's innovation lab (iLAB) is now part of the Connected Labs initiative at the Center for Large-scale Data Systems Research (CLDS), based at the San Diego Supercomputer Center (SDSC) at UC San Diego. AEEC is working with BlockLAB, SDSC's blockchain research laboratory, to define real world proof of concept studies and code-level development testing in blockchain. AEEC and BlockLAB will soon be announcing new, joint project work going forward.

## AEEC iLab Ecosystem:



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