Element | 84

Element 84 is a women-owned software development firm that builds ambitious web applications and cloud services engineered for high scalability. We work with public and private sector clients to create systems that help solve problems and answer big questions about our health, our infrastructure, and our changing planet. We have over a decade of experience helping satellite operators, universities, and organizations like NASA and the USGS create systems, software, and user experiences that make their data more actionable and accessible.

Core Services

◉ Remote Sensing Applications, Data Management, and Analysis
◉ Large-scale Cloud System Design
◉ Agile Software Engineering
◉ UI/UX Research and Design

Why Element 84

◉ 45+ employees organized into high-caliber, Agile teams
◉ Deep working experience in a wide variety of development languages, application platforms, and government-compliant cloud computing
◉ Raytheon Subcontractor Excellence Award
◉ NASA Mentor/Protege Award 2018
◉ Authors of multiple books for various O'Reilly series'
◉ Silver Addy Award Recipient
◉ Inc 5000 Award Recipient
◉ AWS Advanced Tier Partner
◉ 91.8% employee retention rate in 2018
◉ Open source community participation (COG, STAC, and FOSS4G)

Speaking & Thought Leadership

◉ AGU 2011-19
◉ ESIP 2016-19
◉ DC Lean Startup
◉ ESA Living Planet
◉ EUMETSAT's PV2015
◉ FrontConf

◉ Strange Loop
◉ Data Science MD
◉ AWS re:Invent
◉ AWS PSS
◉ ESA Phi Week
◉ FOSS4G

What We've Done

◉ **Architecture, design, and implementation of NASA Cumulus**, the cloud-based ingest, management, and distribution system for the EOSDIS data archive.
◉ **OPeNDAP development on MODIS and ASTER satellite products** for for NASA and USGS's Earth Resources Observation and Science Center.
◉ **Technical design and development of NASA's Earthdata Search**, the flagship search and discovery tool for EOSDIS data.
◉ **Architecture, design, and implementation of NASA's Common Metadata Repository (CMR)**, a high performance, highly scalable inventory of NASA's 16 petabytes of Earth Observation Data.
◉ **Project leadership on the NASA-compliant General Application Platform (NGAP)**, a platform for Earth Science application and data repositories to leverage cloud native architectures and scalability.
◉ **Design and development of UNESCO's Ocean Best Practices Portal**, a website and data backend for searching ocean best practices research and document metadata.
◉ **Developed FilmDrop**, a suite of commercial tools for remote sensing data ingest and management.

NAICS Codes

◉ **541511** Custom Computer Programming Services
◉ **541330** Engineering Services
◉ **541512** Computer Systems Design Services
◉ **541513** Computer Facilities Management Services
◉ **541519** Other Computer Related Services
◉ **541712** Research and Development in the Physical Engineering and Life Sciences (Except Biotech)