

Alef Lambda

Capabilities Statement

✉ jmmatthews@aleflambda.io ☎ +1 (469) 901-9233 📄 Minority Owned

Alef Lambda specializes where hardware meets software. We make RISC-V FPGAs, ASICs, and concurrent computing models built on them. We pioneer the next stage of computation with advanced programming methods

COMPANY DATA

UEI — D67XCKK74U55

CAGE — 11TR0

Legal Business Name — Alef Lambda L.C

PAST PERFORMANCE

Custom Data Normalization Engine: Took in data from a database, parsed millions of rows and applied custom logic using parser combinators.

Yubikey Testing Automation: Created embedded programs to automate yubikey testing

NAICS

541511,
Custom Computer Programming Services

541512,
Computer Systems Design Services

513210, *Software Publishers*

334111,
Electronic Computer Manufacturing

334418,
Printed Circuit Assembly (Electronic Assembly) Manufacturing

Alef Lambda

CORE COMPETENCIES

Programming Language

Development: Expertise in lexers, assemblers, linkers, bytecode, virtual machines, emulation, parsers, lambda calculus, proof assistants, and solvers

Custom Software

Development: Expertise in Common Lisp, Scala, Chisel, System Verilog, Verilator, Simulation Testing, Database integration, SQL, data analytics, backend services, and Cloud Applications

Emerging Computer

Architectures: Expertise in RISC-V Development and RISC-V assembly

Real Time Operating

Systems: Expertise in Linux and freeRTOS

PCB Assembly

FPGA/ASIC Design

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