

EIRA VAUGHN

High-Performance Computing Specialist

✉ e.vaughn@email.com

☎ (123) 456-7890

📍 Alpharetta, GA

🌐 [LinkedIn](#)

EDUCATION

Master of Science
Computational Science and
Engineering

Georgia Institute of
Technology

📅 2016 - 2018

📍 Atlanta, GA

Bachelor of Science
Computer Science and
Engineering

Massachusetts Institute of
Technology

📅 2012 - 2016

📍 Cambridge, MA

SKILLS

MPI; Slurm; Lustre; CUDA; Vampir
; Intel Parallel Studio XE; Fortran;
BLAS; AWS ParallelCluster;
ParaView

CERTIFICATIONS

- Certified HPC Professional (CHPC)

WORK EXPERIENCE

High-Performance Computing Specialist

Hewlett Packard Enterprise

📅 2021 - current 📍 Alpharetta, GA

- Upgraded storage infrastructure with Lustre, enabling seamless data throughput of 1.2 TB/hour for genomic sequencing workflows
- Improved application runtime monitoring with Vampir, identifying bottlenecks and reducing code execution delays by 2.3 hours per iteration
- Developed advanced numerical algorithms using Fortran for weather modeling, reducing simulation processing time by 13 hours for daily forecasts
- Integrated Intel Parallel Studio XE's compilers for C++ and Fortran, reducing job completion time by 17% across 152 nodes and **saving \$14.3K per year in upgrades**

Software Developer

Honeywell

📅 2018 - 2021 📍 Atlanta, GA

- Expanded application scalability by optimizing GPU acceleration using CUDA, enabling support for 1.2k concurrent users
- Analyzed API performance for distributed systems, enhancing inter-node communication with MPI, cutting latency by nine milliseconds
- Designed cross-platform simulation tools using Lustre, enabling seamless data access for 643+ global users, improving data sharing efficiency
- **Processed 196TB of simulation data** monthly using AWS ParallelCluster, saving \$44k yearly on cloud infrastructure costs

IT Support Technician

IBM

📅 2016 - 2018 📍 Atlanta, GA

- Spearheaded the deployment of Slurm across new clusters, reducing job scheduling setup time by 12 hours per cluster
- Overhauled GPU resource management using CUDA, **accelerating rendering times 8X** for multimedia applications
- Approved the adoption of BLAS-based libraries in 12 analytical tools, improving matrix operation processing times for finance and logistics teams
- Monitored visualization tools like ParaView for real-time support during client presentations, enhancing presentation reliability by 96%