DR. JEFFREY L. HAFERMAN

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SUMMARY:

Highly experienced Computational & Data Scientist with over 30 years of expertise in High Performance Computing (HPC), GPU-centric systems, Engineering, and Data Science. Proven leader with a strong track record in strategic planning, team management, and collaborative research initiatives. Extensive hands-on experience in accelerated computing using GPUs, AI/ML frameworks, and large-scale data-intensive research. Director of Research Computing with a history of driving innovation and optimizing research computing infrastructures.

EXPERIENCE:

- Director of Research Computing, NPS, Monterey, California (May 2006 present)
 - Lead strategic planning and management of the HPC center with a \$1.6M annual budget.
 - Oversee a 10,000 CPU-core cluster with 100+ GPUs, 3+ petabytes of storage, and advanced AI/ML GPU-based systems.
 - Collaborate with faculty across various disciplines to support cutting-edge research and innovation.
 - Develop and maintain external relationships with universities, research organizations, and corporations.
- Consultant, WhiteRabbit.ai, San Francisco, California (July 2022 present)
- CTO, Validator. Capital, San Francisco, California (May 2020 present)
- CTO, Qoor.io, San Jose, California (March 2018 July 2021)
- Physical Scientist, FNMOC, Monterey, California (July 1997 April 2006)

EDUCATION:

- Post-doc, NASA/Goddard Space Flight Center, Greenbelt, MD (1996-1997)
- Ph.D., Mechanical Engineering, The University of Iowa, Iowa City, IA (1995)
- M.S., Mechanical Engineering, The University of Iowa, Iowa City, IA (1991)
- B.S., Mathematics, The University of Chicago, Chicago, IL (1986)

PROFESSIONAL CERTIFICATIONS:

- CISSP
- CompTIA Security+
- CompTIA Linux+
- Lean Six Sigma Yellow Belt

TECHNICAL EXPERTISE:

Machine Learning, AI Frameworks, LLMs: TensorFlow, PyTorch, Keras, Ollama and friends

Relevant Software Stacks: Conda, Jupyter, Ansible, Docker, Kubernetes, Singularity/Apptainer

Programming: C, C++, Python, Fortran, Java, Ruby, Perl, R, SQL, bash

Job Schedulers: SLURM, SGE, PBS/Torque

File Systems: Lustre, BeeGFS, CEPH, Gluster

Cloud HPC Solutions: AWS, Azure, Google HPC

Networking and Storage: Mellanox Infiniband, Rockport (Cerio) Network Fabric, Spectralogic tape, GRAID

MPI Stacks: MPICH, OpenMPI, MVAPICH with Intel, GNU, and NVIDIA compilers

Big Data and Data Analytics: Apache Hadoop stack, Cloudera CDH, MongoDB, Globus Data Transfer Node

Operating Systems and Administration: Linux (RHEL, Rocky, CentOS, Ubuntu, Debian), Unix (FreeBSD, OpenBSD, NetBSD, Solaris), Mac OSX, Windows

THESIS and DISSERTATION ADVISING:

Advisor on six theses and dissertations at the Naval Postgraduate School, Monterey, CA.

PUBLICATIONS:

Author of dozens of scientific papers, proceedings, and presentations including a book chapter entitled "Microwave Scattering by Precipitation".