**JAMES R. BERGSTEN**

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**STRATEGIC LEADER – INFORMATION TECHNOLOGY**

A seasoned leader with a proven track record of delivering high-quality results, increasing revenue and profitability for start-ups to public enterprises and leading highly collaborative and engaged teams. Successful in bringing enterprise-class, high-quality products to market, including the world's fastest-performing network-attached NVMe array. Designed and developed over ten successful commercial software/hardware packages and holds several patents. An engaged entrepreneur and founder of a consistently profitable, award-winning software company and enterprise that developed a world-class, open-systems data storage product, sold to a top-tier publicly traded storage supplier. An innovative professional who excels at designing easy-to-use interfaces for complex products, and specialize in Operating Systems, Device Drivers, Storage, Disaster Recovery/Business Continuance, and Security.

**Core Competencies**

* Strategic Planning
* Architecture and Design
* Development
* Testing and Debugging
* Technical Support
* Technical Documentation
* Sales and Marketing
* Finance and Administration
* Device Drivers
* Disaster Recovery/Business Continuity
* Security
* Leadership

**PROFESSIONAL EXPERIENCE**

**Retired 4/2023 – present**

**In-house Consultant | Intel 12/2019 – 3/2023**

* Managed and led multiple projects with successful outcomes, utilizing project management skills to keep projects on track and within budget.
* Developed and implemented a database and web server to showcase Intel-proprietary security features, resulting in increased visibility for the company's security offerings.
* Designed and developed a TCP/IP utility for 5G, XR, and edge computing project, resulting in improved efficiency and performance of the system.
* Created TCP/IP bridges for edge computing-based mobile gaming, facilitating seamless communication between systems and providing a better gaming experience for users.
* Developed Firmware Over-The-Air (FOTA) for Zephyr-based embedded systems, improving the ease and reliability of updating the system.
* Submitted multiple patent and white paper submissions, demonstrating expertise and innovation in the field.
* Recognized as a subject matter expert in Networking and Virtual Machines, providing valuable insights and knowledge to the team.

**Principal Consultant |Intel Via Jared Hulbert Enterprises 11/2017 – 11/2019**

* Collaborated with Intel’s Non-volatile Solutions Group (NSG) Marketing and Engineering and Annapurna Labs to debug and develop firmware, tools, and tests for Optane and NAND NVMe dual port drives to ensure successful enterprise marketplace launch.
* Developed over eighty utilities, comprising over 100,000 lines of code, to improve drive performance, stability, and functionality.
* Contribution to SPDK, including writing several SPDK utilities and storage allocator, to enhance the development and deployment of storage applications.
* Conducted hands-on debugging and performance analysis using Oakgate, Teledyne LeCroy, and other tools to identify and resolve issues.
* Played a key role in defining and validating advanced product functionality such as data protection (DIF/DIX/PI), multiple namespaces, logging, telemetry, and reservations to ensure superior product quality.

**Vice President | Apeiron Data Systems 07/2017 – 09/2017**

* Co-invented two core intellectual properties, which resulted in two US Patents being issued and approved.
* Architected host-to-enclosure and NVMe drive protocols and sub-microsecond host-to-host protocol to ensure high-speed data transfer and efficient communication.
* Oversaw the designing and authoring Linux/Windows/ARTS device drivers, HBA support, transparent NVMe protocol support, and HBA, enclosure, and drive configuration, firmware download, management, etc., to ensure seamless and efficient host-side software operations.
* Designed and authored virtual volume and three-way mirror/replication and performance measuring and reporting to ensure accurate data management and efficient data transfer.
* Authored fifty Linux shell command utilities supporting product management, configuration, diagnostics, debugging utilities, data integrity, and other tests to ensure comprehensive testing and analysis of product functionalities.
* Represented NVM Express Organization and contributed to advancing industry standards.
* Served as a member of Executive Staff, contributing to high-level strategic decisions and leading cross-functional teams to achieve business goals.

**Consultant | SanDisk 07/2013 – 02/2015**

* Provided consultation services for UFS host and device design, development, debugging, and testing.
* Developed and implemented bring-up, conformance, and performance tools and drivers for NVMe and UFS, ensuring successful integration with various devices and systems.

**Firmware Lead | PMC-Sierra 09/2011 – 07/2013**

* Developed and maintained SCSI firmware for SAS and PCI Express FLASH chips, ensuring optimal performance and reliability.
* Designed and developed SCSI target code for PMC chipsets, contributing to the development of high-performance storage solutions.
* Created internal and customer-facing technical documentation, ensuring effective communication of complex technical information to both technical and non-technical stakeholders.

**Principal Consultant | MSB Associates 11/2010 – 09/2011**

* Provided technical consulting services for multiple clients on diverse projects, including firmware development for SAS-to-FLASH and PCI Express-to-FLASH devices, performance analysis for a Fibre Channel-based data acquisition system, and development of numerous SCSI-conformance and compatibility tests.
* Developed drivers for proprietary RTOS for various interfaces such as FC, SAS, AHCI, SCSI-loopback targets and initiators, USB bus and device drivers, 1, 10, and 40 GigE device drivers, and POSIX/Linux compatibility routines.
* Ported FreeBSD filesystems to proprietary RTOS and created websites and databases for BSA Units and District.
* Designed and developed thin client and server architecture, hardware, and software for a developing country’s school system.

**Storage Architect/Designer | Network Appliance 08/2008 – 11/2010**

* Designed and led a team to create an FC to SAS Storage Bridge for MetroCluster remote data mirroring, ensuring business continuance and disaster recovery for the organization.
* Created an architecture and methodology for modularizing NetApp’s core technology (DataONTAP), streamlining development and improving efficiency.
* Assisted in porting FC and SAS drivers to FreeBSD, enabling compatibility with the organization’s operating system.

**Owner | Ark Systems Corporation 10/2005**

* Created and developed innovative products and technology for the company.
* Successfully secured business partners and investors to support company growth.
* Developed IBM mainframe log capture product for LogLogic Corporation, resulting in increased efficiency and accuracy of log capture process.
* Provided consulting services to Network Appliance Corporation, assimilating, and debugging defunct supplier’s storage modules and Linux firmware.
* Offered expert witness consulting services in patent infringement cases, providing valuable technical expertise.
* In the process of authoring a technical book on computer storage systems.

**Experience prior to 2005**

**Senior Director, Staff to President | LSI Logic / Engenio**

* Managed and led the LSI Logic Storage Systems Milpitas Development Center, overseeing development, debugging, testing, technical and marketing documentation, and support for the ContinuStor Director (CSD) product.
* Collaborated with the executive staff in strategic planning, budgeting, DR/BC, product roadmaps, employee satisfaction, IPO, spin-off, and internationalization initiatives.
* Contributed to critical projects, including adding Serial ATA (SATA) and iSCSI support to LSI Logic’s flagship product lines, and participated in business, technical, and project consulting for Engineering, Marketing, and Advanced Architecture teams.
* Provided guidance to the President's staff, supporting, and facilitating projects to ensure successful outcomes.
* Played a key role in product development by participating in executive staff meetings and contributing to product roadmaps.
* Successfully supported the IPO and spin-off processes, ensuring the company's compliance with international regulations and standards.

 **Founder | Ark Research Corporation**

* Founded a startup to develop and market advanced storage subsystems for the open systems market, successfully raising seed, first and second round venture capital funding.
* Designed and personally developed most of the product's operating system, networking, application code, and documentation.
* Managed all administrative activities, including company startup, facilities, information technology, finance, personnel, insurance, 401K, payroll, and investor relations.
* Served on the Board of Directors and played a critical role in strategic planning, product development, and business operations.
* Developed a product that transparently added advanced functionality such as remote data mirroring to existing server and storage configurations with no changes to existing systems and applications, contributing to the company's success and growth.

**Vice President | Andor Systems, Inc.**

* Designed, manufactured, and marketed CacheXchange (CXC), a mainframe storage subsystem for Direct Access Storage Device (DASD) global caching and disaster recovery.
* Reported to the President and was responsible for product development, architectural integrity, and future plans and designs.
* Successfully brought a highly complex hardware/software product to market with less than 10% of the capital and personnel of the smallest competitor.
* Developed CXC's internal caching operating system, including all Remote Dual Copy/DASD code - the world’s first implementation.
* Contributed to high-level technical support for sales support and customers, and participated in product testing performance tuning, and debug.
* Filed multiple patents for innovative product features.

**Founder | Kolinar Corporation (Relay Technology)**

* Founded Kolinar Corporation and led the development and marketing of productivity tools for the IBM VM and MVS marketplace.
* Released over six products in multiple versions, including XMENU, considered the industry standard for VM windowing and terminal interaction.
* Developed and marketed systems and applications-enabling products and directed product development, product support, customer support, documentation, and computer centers.
* Managed the conversion of all company products to the IBM extended architecture environment, requiring significant changes to twelve products, including rewriting four products.
* Responsible for the conversion of all documentation to the IBM/BookMaster format.
* Instilled a strong sense of cooperation, dedication, and loyalty into the six divergent technology groups.

**CERTIFICATION, TRAINING AND PROFESSIONAL DEVELOPMENT**

* Certified Information System Security Professional (CISSP)
* DRII Certified Business Continuity Planner (CBCP)
* Storage Networking Industry Association (SCSA, SCSP, SCSE)
* BSA Wood Badge Leadership Training
* US Amateur Radio (Extra) license (AF6FO)

**ACTIVITIES, INTERESTS AND ASSOCIATIONS**

* Co-author of "VM Applications Handbook," and "The REXX Handbook."
* Speaker at many industry functions -- keynote speaker at technical workshops.
* Taught many technical classes, including classes in Japan, Italy, England, and Germany.
* Served on computer planning and acquisition committee for local public television station -- Helped in fund-raising for homeless charity and college building fund.
* Acted as advisor to several start-up companies.
* Member of AMA, ACM, IEEE, AES, and several regional technical groups.
* Own private state-of-the-art digital recording/music studio. Contributed to music recordings as composer, performer, producer, and engineer.
* Served on BSA Troop and District Committees. Regularly participated and scheduled Eagle Scout Project and Final Boards of Review. Merit Badge Counselor
* Director, Cameron Estates Community Services District. Member CERT.