SERGEY MOTORNY

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Data Scientist | Data Engineer

Experienced in design and implementation of complete Data Science solutions.

Summary

Doctor of Science in Information Systems with background in Data Science, Development and Operations (DevOps), and Machine Learning. Deadline, budget and quality-driven; Expert in delivering turn-key Data Science solutions with resilient, scalable, and user-friendly components. Published author - HICSS best paper nomination. Bi-lingual: English and Russian.

- Proposed, built, and delivered a deep learning solution with fiber-attached storage, GPU-powered compute nodes, and resilient resource sharing.
- Designed and implemented AI-driven workflow for markerless animal tracking with machine learning Python tools and 3D image reconstruction technology.
- Streamlined research laboratories via industry-based DevOps principles, agile software development, and frictionless workflows.

Education

Data Science, Nashville Software School, Nashville, TN (2019)

Doctor of Science (Healthcare Information Systems), Dakota State University, SD (2015)
All course requirements completed with 4.0GPA

Master of Science (Information Systems), Nova Southeastern University, FL (2003)
Bachelor of Science (Business Administration), Nova Southeastern University, FL (2001)

Certifications: Data Scientist with Python ▪ R Programmer ▪ Python Programmer ▪ SCNA (Sun Certified Network Administrator) ▪ RHCE (Red Hat Certified Engineer)

Experience

VANDERBILT UNIVERSITY, Nashville, TN
UNIX Systems Administrator III 6/2013 – 7/2020
Technology support for the departments of Vision Research and Cognitive Neuroscience. Existing infrastructure with fiber-attached storage, custom databases, and web sites.

- Pioneered DevOps principles in an academic research setting.
- Successfully filled the roles of a previously four-person team of UNIX Systems Administrator, Windows Systems Administrator, Apple Support Tech, and Graphics Designer.
- Quadrupled storage infrastructure while introducing cloud services, GPU-based compute nodes, machine learning, and Docker containers.
- Turn-key delivery of research solutions involving online experiments and GPU computing for Big Data.
- Designed and implemented the workflow for markerless animal tracking via AI-based computer vision technology.
- Proven 24/7 operations support with 99.9% uptime for core technology services.

Nashville Software School, Nashville, TN
Data Scientist 9/2018 - 5/2019

- Used natural language processing and machine learning tools to predict at fault parties of automobile accidents.
- Wrote custom scripts for Tensorflow benchmarking and a corresponding R Shiny dashboard for user-friendly data exploration.

- Developed and presented real estate affordability solution to Nashville City Council.
- Predicted high-impact truck de-rates using pandas, scikit-learn, and Catboost.

MEREDITH CORPORATION, Des Moines, IA 4/2007–10/2011
UNIX Systems Administrator, Enterprise Application Support
Report to: Director of IT. Company: $1.6B media owner of 14 magazines and 12 television stations. Presided over a 6-node cluster of servers providing 25 Terabytes of data to seven cities contributing to the production of 32 major magazines. Supported corporate infrastructure consisting of 3000+ users. Technology: Solaris and Linux servers, Veritas Clusters, SAN-attached storage and enterprise application support. Digital library, social collaboration tools (Jive) and iPad digital editions. Secure authentication (LDAP) support.

- Stepped outside the role of Systems Administrator, to assume control of driving the iPad digital editions solutions in a project without an assigned project manager and little more than a purchase order. Established new relationships and actively solicited deadlines. The replacement of Helios, a costly and failure-prone application, reduced volumes of helpdesk requests, reduced end-user discontent and improved stability.
- Researched and built a free, LDAP authentication system from Sun Microsystems, that provided a stable and compliant alternative to Microsoft's proposal of identity synchronization product quoted at $100K to install and 20% in annual licensing fees. The solution eliminated the company's non-PCI compliance set to deliver significant fines and the need for ongoing and costly licensing.
- Selected as a key point of contact for recently acquired company, Hyperfactory where the reliance on the social collaboration application Jive, was crucial to support communication and productivity for staff across the globe. The complexity of downsizing the company and integrating into Meredith's technology infrastructure was complex, requiring adherence to deadlines and good interpersonal relationships.
- Averted loss of Veritas technical support and eliminated frequent outages costing hundreds of thousands of dollars. Planned and rolled out a three-phase upgrade from version 3.5 to 5.1—a 13-hour non-stop project that also delivered greater stability to the company's 32 websites.

AUTOMATIC DATA PROCESSING, Inc., West Des Moines, IA 2/2006–3/2007
Associate UNIX Systems Administrator
Reported to: Manager of IT. Company: Provider of information-based business solutions worldwide with $9B in revenues. Fortune 500 clients including United Airlines, Wells Fargo, and Sempra Energy. Summary: Task automation with scripting, server support (Solaris, Linux, HP-UX operating systems), secure authentication with LDAP. Veritas Clustering and Veritas Cluster File System.

Three-person team supporting the entire multi-million dollar data center. Controlled electronic data interchange knowledge transfer that allowed the UNIX team to absorb a departing associate's workload without additional staffing or longer hours. Quality of training provided saved $70K in labor costs annually and was praised by customers impressed by the improved service quality.

- Streamlined time consuming, yet routine task of system user-removals. Developed automated script that allowed elimination of user IDs from multiple servers and authentication databases simultaneously.
- Introduced a centralized authentication system (LDAP) that resolved issue of user IDs scattered across several servers. Delivered project in two weeks compared to previous efforts that failed to deliver after two months.
- Boosted system security and streamlined method of access for Samba users by unifying passwords. Won praise from the VP of Technology for initiative that routinely changed passwords each quarter.

Publications

Daicia C. Allen, Wolf Zinke, Sergey Motorny, Chrissy L. Suell, Kari L. Hoffman (2019 October). *Flexible learning of three-dimensional place contingencies in freely-moving macaques, Society for Neuroscience.* In 2019 Society for Neuroscience Conference.

Motorny, Sergey, Design of a Patient-Centered and Clinically Integrated Patient Decision Aid (2015). Masters Theses & Doctoral Dissertations. 296.

Noteboom, C. B., Motorny, S. P., Qureshi, S., & Sarnikar, S. (2014, January). *Meaningful use of electronic health records for physician collaboration: a patient centered health care perspective.* In 2014 47th Hawaii International Conference on System Sciences (pp. 656-666). IEEE.

Motorny, S. P. (2013). *Big Information Technology Bet of a Small Community Hospital.* In S. Sarnikar, D. Bennett, & M. Gaynor (Eds.), Cases on Healthcare Information Technology for Patient Care Management (pp. 70-94). Hershey, PA: IGI Global

Motorny S. P., Sarnikar S. (2013*). Design of an Intelligent Patient Decision Aid Based on Individual Decision Making Styles and Information Need Preferences.* In 2013 Pre-ICIS SIGDSS Workshop on “Reshaping Society through Analytics, Collaboration, and Decision Support: Role of BI and Social Media.”