UP AND RUNNING TEAMS WITH NOTED NEUROSCIENTIST

IN MAKING RESEARCH TECHNOLOGY ACCESSIBLE WORLDWIDE

"The work we've assigned to UAR has involved complex user interfaces, which they have implemented beautifully," said Dr. Daniel Marcus.

"I have worked closely with Pete and his team for two years. They have provided contract-based software development for several of our large projects. As a team, Up and Running (UAR) has delivered very high-quality work on time and to spec. The work we've assigned to UAR has involved complex user interfaces, which they have implemented beautifully," said Dr. Daniel Marcus of another successful Up and Running foray into an exploding health care field. This one is destined to rapidly advance all medical research utilizing imagery.

Dr. Marcus and the Science of Neuroinformatics

Dr. Daniel Marcus, PhD, is a neuroscientist and recognized leader in the development and operation of imaging informatics solutions and associate professor of radiology at Washington University of St. Louis.

His contributions to neuroinformatics, a research field whose objective is to organize and utilize neuroscience data through the use of data management and analytical tools, are sizable—Google Scholar indicates that papers he has authored or contributed to have been cited over 5,000 times in academic literature.
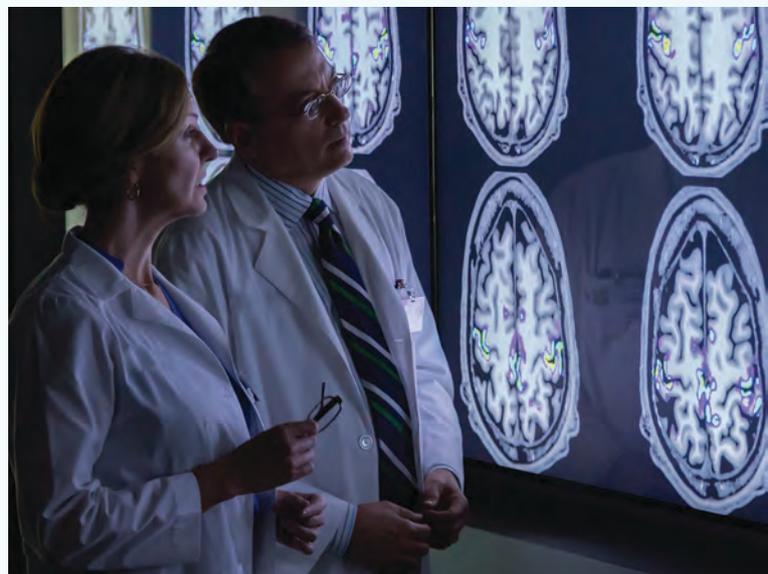
The Neuroinformatics
Research Group and Radiologics

Marcus serves in numerous capacities, advocating for open sharing of data globally in an effort to study and treat Alzheimer's disease and a host of other neurological disorders such as autism, stroke, depression, and brain cancer. Among his multiple roles in the field, Marcus serves as director of the Neuroinformatics Research Group (NRG) at Washington University, a cross-disciplinary lab that facilitates advanced research to better understand the living brain.

In addition, he is founder and president of Radiologics, a private startup focused on improving the efficiency and utility of imaging in clinical research. Marcus also directs imaging informatics operations for a number of large-scale research programs, including the Human Connectome Project, the Dominantly Inherited Alzheimer Network, and the Neuroimaging Informatics and Analysis Center.

XNAT

At the core of both NRG and Radiologics is XNAT, an informatics platform widely used for managing imaging and related data developed by NRG, producing data that is utilized in ongoing medical research. "One of the big fields right now is using medical imaging technology at very large scales, utilizing large numbers of research subjects, doing advanced brain imaging to understand how the brain works through the aging process and also when it is disrupted by disorder or condition," explained Marcus. XNAT employs advanced computation rather than single images read by radiologists, utilizing algorithms that extract quantitative measures from the images and relate them to clinical conditions and cognitive capacity, which can then be correlated to changes in the brain.

Applicable in fields beyond neuroscience, XNAT is used worldwide by public and private research entities studying the subjects of brain imaging, oncology, osteoarthritis, and cardiology, each with its own version of the open source imaging platform. "Pretty much if you can image it in some way, someone is using the platform," said Marcus.

Radiologics also employs XNAT technology as a means of service to research institutions worldwide. As a spin-off of NRG, Radiologics utilizes the open technology to provide commercial support to those institutions and industries that do not have the expertise or resources to incorporate the platform into their workflow. Radiologics also provides a branded version of the XNAT technology that is FDA compliant.

Numerous case studies speak to the success of this startup. Per a 2015 Radiologics case study report, "At Mount Sinai, XNAT imaging analytics are driving psychiatric research." In another study, the Center for Neuroscience and Regenerative Medicine (CNRM) stated that XNAT is "helping find treatments for PTSD in our nation's veterans." CNRM is a federal program sponsored by the National Institutes of Health and the Department of Defense, and managed by the Henry M. Jackson Foundation for the Advancement of Military Medicine.

UAR Partners with Marcus et al.

Marcus was referred to Up and Running by one of his Washington University developers and considers UAR an invaluable partner for both entities he manages. "They have been a tremendous resource for both NRG and Radiologics. Here in the lab, we have projects where we may have the resource[s], but they are over-committed; or UAR may simply have the better skills," said Marcus, citing an Internet/web portal UAR built for a project at the lab, among several.

"At Radiologics we were a startup and as such did not have or need a software development staff. We paired with UAR to do much of the web application development, in particular the front-end development for the user interface," recalled Marcus, noting that the UAR team was particularly responsive to the bursts of activity typical of a startup's progression from concept to marketplace.

In a subsequent project, building upon XNAT itself, Up and Running developed the user interfaces for a data federation in the United Kingdom that would allow a restricted query across multiple institutions' databases to identify where data of value might reside, allowing researchers to then request access to that otherwise-private data for use in their study.

"While we have done similar work, the XNAT project, with the application being somewhat separate, provided some challenge as well as greater flexibility in how we designed the user experience," said Pete Hanson, founder of Up and Running.

A Ready and Reliable Team

"The thing that has been most important to me is how reliable they have been at delivering quality work on time without the need for any management on my part," shared Marcus, adding that the unique structure of Up and Running allows them to manage their costs in a way that passes a very favorable pricing to the customer.

"Ironically, I've never met Pete or any of his staff, and I know they are all over the country and the world, and yet whenever we need a consultation, those guys are at the ready and responsive to our needs. And the team actually feels like a team, not like some random group," observed Marcus, with a certain awe at the way the UAR team functions as one in an era of independent developers.

The admiration is mutual, Hanson said. "Working with Dan, it is very clear that he is laser-focused on his vision and able to clearly define where he wants our work to lead." It is a partnership that both sides foresee carrying forward.

About Up and Running

We partner with clients to solve important technical problems by building, implementing, and servicing complex software solutions for customers of any size in any industry.

Started in 1995 while founder Pete Hanson was a sophomore in high school, Up and Running Software began as a technical services firm and evolved into a developer of custom software solutions. Customer happiness and open communication have been the focus since day one, plain and simple, resulting in long-term relationships with any type of client, from non-profits to startups to the Fortune 10. Thanks to this mindset, Up and Running is fortunate to have served an impressive array of clients, including giants such as General Electric (GE), Henry Schein, Sanofi, and Hearst, as well as venture-backed startups at every phase, from formation to growth.

Its over two decades of custom software development, legacy system support, and migrations drive the engines of solutions that thousands of businesses and millions of people rely on daily. That experience has resulted in hands-on depth in most software development stacks, from the command line systems in the back office to ones that gracefully handle any screen size worldwide. A commitment to QA and process improvement drives scalable results, producing long-term software assets with high ROI. Up and Running's work passes FDA & DEA audits, rolls up global treasury data, manages nuclear assets and railroads, delivers vaccines, and enables neuroscientists and researchers.

Contact Up and Running:
solutions@upandrunningsoftware.com
Phone: +1, 888-447-9273
Let us know your preference, and we'll connect you with either a technical architect directly or a non-technical sales representative.