

Europass Curriculum Vitae



Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Email(s)

Nationality(-ies)

Date of birth

Gender

Brazile, Paul Jason

Fuchsiastrasse 15, 8048 Zurich, Switzerland

(0041) (0)44 261 69 08

jbrazile@gmail.com

USA

Feb 14, 1968

Male

Occupation

Research Scientist/Software Engineer

Education

2002–2007

Doctorate of Natural Sciences, Supervision by Prof. Dr. Klaus I. Itten
University of Zurich (Zurich, Switzerland)

1991-1994

Master of Science, Computer Science, minor in Geography
University of Texas (Austin, Texas, USA)

1986–1991

Bachelor of Arts, Computer Science (cum laude), minor in Mathematics
University of North Texas (Denton, Texas, USA)

1983–1986

High School **Diploma**
Denton High School (Denton, Texas, USA)

Professional experience

1998 – Present

Software Architect/Engineer, Netcetera AG (Zurich, Switzerland)

System analysis, design, and development of enterprise transaction systems

2004

Visiting Research Scientist, Hyperspectral Applications Division, Canada Centre for Remote Sensing (Ottawa, Ontario, Canada)

Hyperspectral image processing and scene-based instrument characterization research

2002 – 2005

Research Associate, Remote Sensing Labs, University of Zurich (Zurich, Switzerland)

Co-development of APEX Hyperspectral Processing and Archiving Facility (PAF)

1996 – 1998

Software Developer, Ampersand, Inc (BillERICA, Massachusetts)

Contract programming for various projects including super computer kernel development, SCSI kernel device driver maintenance, MATLAB compiler port to a parallel computing environment, and GIS database middleware

1994 – 1996

Operating System Specialist, Platform Group, DSC Communications Corporation (Plano, Texas)

Designed and implemented locking, error detecting, and auditing primitives for an embedded telecommunications product.

- 1991 – 1994 **Operating System Specialist, Department of Mathematics**, University of Texas (Austin, Texas)
Facilities coordinator/system manager for the departmental UNIX network of 75 Sun Sparc and NeXT workstations. Managed a group of student system administrators.
- 1991 **Software Developer**, Lockheed Missiles and Space Company Inc (Austin, Texas)
Incorporated configuration management and automatic documentation preparation tools for Lockheed's CMS product, an X/Motif cartographic charting and geopositioning system.
- 1989, 1990 **Programmer**, IEX Corporation (Richardson, Texas)
Wrote serial port I/O bandwidth performance tests for newly released AT&T hardware. Also maintained a locally developed configuration management system.
- 1989, 1990 **Systems Administrator**, Department of Computer Science, University of North Texas (Denton, Texas)
Part of (and eventually led) a team of system managers involved in porting and installing research software on various BSD and System V UNIX machines.

Publications

Peer Reviewed Articles

- Brazile, J., Plaza, A., Schläpfer, D., Nieke, J., and Itten, K.I., **Streaming, Language-Neutral, Hyper-spectral Image Processing Components**, Software Practice and Experience, Wiley, 2008, in preparation.
- Brazile, J., Neville, R.A., Staenz, K., Schläpfer, D., Sun, L., and Itten, K.I., **Toward Scene-Based Retrieval of Spectral Response Functions for Hyperspectral Imagers Using Fraunhofer Features**, Canadian Journal of Remote Sensing, Canadian Aeronautics and Space Institute, 2007, in press.
- Brazile, J., Richter, R., Schläpfer, D., Schaepman, M.E., and Itten, K.I., **Cluster versus Grid for Operational Generation of ATCOR's MODTRAN-based Look Up Tables**, Parallel Computing, Elsevier, 2007, in press, doi:10.1016/j.parco.2007.11.002
- Brazile, J., Neville, R.A., Staenz, K., Schläpfer, D., Sun, L., and Itten, K.I., **Scene-Based Spectral Response Function Shape Discernibility for the APEX Imaging Spectrometer**, IEEE Geoscience and Remote Sensing Letters, IEEE, 3, 414–418, 2006, doi:10.1109/LGRS.2006.873873
- Brazile, J., **Iterating over Permutations**, The Perl Journal, 3(3), Orwant, 1998.
- Dorigo, W., Zurita-Milla, R., de Wit, A., Brazile, J., Singh, R., and Schaepman, M., **A review on reflective remote sensing and data assimilation techniques for enhanced agroecosystem modeling**, Journal of Applied Earth Observation and Geoinformation, 2006, Volume 9, Issue 2, doi:10.1016/j.jag.2006.05.003
- Nieke, J., Schläpfer, D., Dell'Endice, F., Brazile, J., and Itten, K., **Uniformity of imaging spectrometry data products**, IEEE Transactions on Geoscience and Remote Sensing, 2007, in press.
- Painter, T.H., Schaepman, M.E., Schweitzer, W., and Brazile, J., **Recent Advances in Reflectance Spectroscopy-based Differentiation of Natural and Artificial Man-Made Substances**, Journal of Improbable Research, Volume 13, Number 5, 2007, doi:10.3142/107951407782225848
- Plaza, A., Benediktsson, J.A., Boardman, J., Brazile, J., Bruzzone, L., Camps-Valls, G., Chanussot, J., Fauvel, M., Gamba, P., Gualtieri, A., Marconcini, M., Tilton, J.C., and Trianni, G., **Recent Advances in Techniques for Hyperspectral Image Processing**, Remote Sensing of Environment, 2007, in press.

Conference Contributions

- Brazile, J., **Low Fat Grid: A RESTful Grid Service for Non-Programmers**, Jazoon '07 – The International Conference on Java Technology, 2007
- Brazile, J., Kaiser, J.W., Schläpfer, D., Nieke, J., Schaepman, M.E., and Itten, K.I., **Parallelization of APEX imaging spectrometer product generation**, Proceedings EARSel 4th Workshop on Imaging Spectroscopy, 103–111, 2005.
- Brazile, J., Schläpfer, D., Kaiser, J., Schaepman, M.E., and Itten, K.I., **Cluster versus Grid for large-volume hyperspectral image preprocessing**, SPIE Atmospheric and Environmental Remote Sensing Data Processing and Utilization: an End-to-End System Perspective, 5548, 48–58, 2004, doi:10.1117/12.559849
- Brazile, J., Kohler, P., and Hefti, S., **A Software Architecture for In-flight Acquisition and Offline Scientific Post-Processing of Large Volume Hyperspectral Data**, Proceedings of the 10th Tcl/Tk Conference (Tcl/2003), 2003, [CD-ROM].
- Brazile, J., Schaepman, M., Schläpfer, D., Kaiser, J., and Itten, K., **A Beowulf-Style Cluster Processing Concept for Large Volume Imaging Spectroscopy Data**, 7th World Multiconference on Systemics, Cybernetics and Informatics, IIS, X, 17–20, 2003.

- Brazile, J., and Vckovski, A., **A Generated XML Interface to An Abstract Market data Service**, XML Conference and Exposition, 2001.
- Brazile, J., and Vckovski, A., **Rapid CORBA Server Development in Tcl: A Case Study**, Proceedings of the 7th USENIX Tcl/Tk Conference (Tcl/2k), 2000.
- Dangel, S., Schaepman, M., Brazile, J., Petitcolin, F., Su, B., Briottet, X., Gloor, M., Moreno, J., and Itten, K., **System architecture and design for a SPECTRA mission end-to-end simulator**, ESA/ESTEC, WPP-225, 2004, [CD-ROM].
- Dangel, S., Brazile, J., Petitcolin, F., Kneubuehler, M., Schaepman, M.E., and Itten, K.I., **The design and prototyping of the SPECTRA simulator architecture**, Proceedings EARSeL 4th Workshop on Imaging Spectroscopy, 2005.
- Debruyne, W., Reusen, I., Kempeneers, P., Deronde, B., Itten, K., Schaepman, M., Schläpfer, D., Brazile, J.K.J., and Meuleman, K., **The airborne imaging spectrometer APEX (Airborne PRISM Experiment): Overview and status questions**, 23rd EARSeL Symposium, Mill Press, xiv, 546, 2003, [CD-ROM].
- Kaiser, J.W., Nieke, J., Schläpfer, D., Brazile, J., and Itten, K.I., **Sensitivity study for atmospheric applications with APEX**, Proceedings EARSeL 4th Workshop on Imaging Spectroscopy, 2005.
- Kaiser, J.W., Schläpfer, D., Brazile, J., Strobl, P., Schaepman, M.E., and Itten, K.I., **Assimilation of Heterogeneous Calibration Measurements for the APEX Spectrometer**, SPIE Sensors, Systems, and Next Generation Satellites VII, 5234, 211–220, 2004.
- Nieke, J., Itten, K., Debruyne, W., Kaiser, J., Schläpfer, D., Brazile, J., Meuleman, K., Kempeneers, P., Neukom, A., Schilliger, T., De Vos, L., Piesbergen, J., Gege, P., Suhr, B., Schaepman, M., Gavira, J., Ulbrich, G., and Meynart, R., **The Airborne Imaging Spectrometer APEX: From Concept to Realization**, Proceedings EARSeL 4th Workshop on Imaging Spectroscopy, 67–74, 2005.
- Nieke, J., Itten, K.I., Kaiser, J.W., Schläpfer, D., Brazile, J., Debruyne, W., Meuleman, K., Kempeneers, P., Neukom, A., Feusi, H., Adolph, P., Moser, R., Schilliger, T., van Quickelberghe, M., Alder, J., Mollet, D., De Vos, L., Kohler, P., Meng, M., Piesbergen, J., Strobl, P., Schaepman, M.E., Gavira, J., Ulbrich, G., and Meynart, R., **APEX: Current status of the airborne dispersive pushbroom imaging spectrometer**, SPIE Earth Observing Systems IX, 5542, 109–116, 2004.
- Nieke, J., Itten, K.I., Kaiser, J.W., Schläpfer, D., Brazile, J., Debruyne, W., Meuleman, K., Kempeneers, P., Neukom, A., Feusi, H., Adolph, P., Moser, R., Schilliger, T., van Quickelberghe, M., Alder, J., Mollet, D., De Vos, L., Kohler, P., Meng, M., Piesbergen, J., Strobl, P., Schaepman, M.E., Gavira, J., Ulbrich, G., and Meynart, R., **APEX: Status of the airborne dispersive pushbroom imaging spectrometer**, Proc. DGPF Jahrestagung, 2004, [CD-ROM].
- Nieke, J., Kaiser, J.W., Schläpfer, D., Brazile, J., Itten, K.I., Strobl, P., Schaepman, M.E., and Ulbrich, G.J., **Calibration methodology for the airborne dispersive pushbroom imaging spectrometer (APEX)**, SPIE Sensors, Systems, and Next-Generation Satellites VIII, 5570, 445-452, 2004.
- Plaza, A., Benediktsson, J.A., Boardman, J., Brazile, J., Bruzzone, L., Camps-Valls, G., Chanussot, J., Fauvel, M., Gamba, P., Gualtieri, A., Marconcini, M., Tilton, J.C., and Trianni, G., **Processing of Hyperspectral Image Data: Advanced Technologies**, Proc. IGARSS 2006, IEEE, 1974–1978, 2006.
- Schaepman, M., Dangel, S., Kneubuehler, M., Schläpfer, D., Bojinski, S., Brazile, J., Kötz, B., Strub, G., Kohler, R., Popp, C., Schopfer, J., and Itten, K., **Quantitative Field Spectroscopic Measurement Instrumentation and Techniques, Proceedings 1st EPFS Workshop on Field Spectrometry**, 2002, 13 pp., [CD-ROM].
- Schaepman, M., Schläpfer, D., Brazile, J., and Bojinski, S., **Processing of large-volume airborne imaging spectrometer data: the APEX approach**, SPIE Imaging Spectrometry VIII, 4816, 72–79, 2002.
- Schaepman, M., Schläpfer, D., Kaiser, J., Brazile, J., and Itten, K., **Land Application Driven Performance Requirements for Airborne Imaging Spectroscopy**, Geophys. Res. Abstracts, 5, 12386, 2003.
- Schaepman, M., Schläpfer, D., Kaiser, J., Brazile, J., and Itten, K., **APEX - Airborne Prism Experiment: Dispersive Pushbroom Imaging Spectrometer for Environmental Monitoring**, Proc EARSeL 3rd Workshop on Imaging Spectroscopy, 2003.
- Schaepman, M., Itten, K., Schläpfer, D., Brazile, J.K.J., Debruyne, W., Neukom, A., Feusi, H., Adolph, P., Moser, R., Schilliger, T., De Vos, L., Brandt, G., Kohler, P., Meng, M., Piesbergen, J., Strobl, P., Gavira, J., Ulbrich, G., and Meynart, R., **APEX: Current Status of the Airborne Dispersive Pushbroom Imaging Spectrometer**, SPIE Sensors Systems and Next-Generation Satellites VII, 5234, 202–210, 2004.
- Schläpfer, D., Kaiser, J.W., Brazile, J., Schaepman, M.E., and Itten, K.I., **Calibration concept for potential optical aberrations of the APEX pushbroom imaging spectrometer**, SPIE Sensors, Systems, and Next Generation Satellites VII, 5234, 221–231, 2004.

Schläpfer, D., Kaiser, J.W., Nieke, J., Brazile, J., and Itten, K.I., **Modeling and Correcting Spatial Non-Uniformity of the APEX Pushbroom Imaging Spectrometer**, 13th Annual JPL Airborne Earth Science Workshop, 11, 2004.

Ulbrich, G., Meynart, R., Nieke, J., Itten, K., Kaiser, J., Schläpfer, D., Brazile, J., Debruyn, W., Meuleman, K., Kempeneers, P., Neukom, A., Feusi, H., Adolph, P., Moser, R., Schilliger, T., van Quickenberghe, M., Alder, J., Mollet, D., De Vos, L., Kohler, P., Meng, M., Piesbergen, J., Strobl, P., Schaepman, M., and Gavira, J., **APEX - Airborne Prism Experiment: The realization phase of an airborne imaging spectrometer**, SPIE Sensors, Systems, and Next-Generation Satellites VIII, 5570, 2004.

Teillet, P., Fedosejevs, G., Gauthier, R., Gibson, J., Hawkins, R., Lukowski, T., Neville, R., Staenz, K., Toutin, T., Touzi, R., White, H., Wolfe, J., Brazile, J., Carbonneau, Y., Chenier, R., Filfil, R., Murnaghan, K., Nedelcu, S., Short, N., Sun, L., and Yue, B., **Recent advances in data calibration and standardisation in support of sustainable development of natural resources**, Proc. IGARSS 2005, 6, 4160–4163, 2005.

Vckovski, A. and Brazile, J., **A Multi-Threaded Server for Shared Hash Table Access**, Proceedings of the 7th USENIX Tcl/Tk Conference (Tcl/2k), 2000.

Reports

Dangel, S., Petitcolin, F., Brazile, J., Miesch, C., Poutier, L., Jia, L., Moreno, J., Gloor, M., Kneubuehler, M., Schaepman, M., and Itten, K., **SPECTRA end-to-end simulator : Final Report ESA**, RSL, 2005, [CD-ROM], http://www.esa.int/esapub/bulletin/bulletin125/bul125_publicat.pdf.

Open Source Software

Brazile, J., **Low Fat Grid**, <http://code.google.com/p/lowfatgrid/>.

Brazile, J., **Grid Hack**, <http://sourceforge.net/projects/ghack/>.

Brazile, J., **MODTRAN-compatible SRF Generator**, The Mathworks Inc., <http://www.mathworks.com/matlabcentral/fileexchange/loadFile.do?objectId=8723>.

Brazile, J., and Dell'Endice, F., **APEX Imaging Spectrometer Tools**, <http://sourceforge.net/projects/apex-esa/>.

Journal Reviews

Computer (IEEE)

Photogrammetric Engineering and Remote Sensing (ISPRS)

Software Practice and Experience (Wiley)

Language Competencies

Mother tongue(s)

Other language(s)

Self-assessment
European level^(*)

Standard German

Swiss German

English

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
C1 Proficient user	C2 Proficient user	C1 Proficient user	B2 Independent user	C1 Proficient user	
B1 Independent user	A2 Basic user	B1 Independent user	A1 Basic user	A1 Basic user	

^(*) Common European Framework of Reference (CEF) level