

Frederic F. LEYMARIE

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EDUCATION

Brown University / Division of Engineering / Providence, RI, USA

- Ph.D. thesis on “Three-Dimensional Shape Representation via Shock Flows,” May 2003.
- Awards: IBM PhD Fellowship, Sigma Xi Outstanding Research.

McGill University / Electrical Engineering / Montreal, Canada / 1990

- Master’s of Engineering: thesis in biomedical imagery on “Tracking and Describing Deformable Objects Using an Active Contour Model.”
- Award: Fellowship of the Natural Sciences and Engineering Research Council of Canada.

Polytechnic School of Montreal / Electrical Engineering / Canada / 1986

- Bachelor of Engineering: GPA: 3.83/4; honors in aeronautics; internship at Canadair, Inc.

PROFESSIONAL EXPERIENCE

Manager : The SHAPE Lab. / Brown University / 2003-present

- Co-author of a second successful proposal to the National Science Foundation (NSF); funding of 2+ million USD over 4 years; see www.lems.brown.edu/shape/.

R&D Project Leader and Researcher : The SHAPE Lab. / Brown University / 1998-present

- Initiated a successful proposal to the NSF establishing the SHAPE lab. (\$1.5 million over 3 years).
- Developed a research plan in pattern analysis (see www.lems.brown.edu/vision/researchAreas/Shocks3D/). Invented and implemented algorithms based on computational geometry, optimization techniques, and multi-scale data analysis, with applications to object modeling and virtual reality systems (patent pending).

Project Manager: Syseca (now Thales) / Thomson-CSF, Inc. / Paris, France / 1994-98

- Managed French and European projects (2 to 10 people) in the fields of Geography, Multimodal interfaces, Technology transfer, Environmental Emergency Management Systems.
- Performed client reporting and negotiations, budget bookkeeping, proposal and report writing and presentations, software design, as well as business development activities.
- Managed the REALISE consortium — 4 R&D teams in 3 countries (France, Germany, Netherlands) — funded by the European Commission (ESPRIT Project #8788); offshoot of this project: www.realviz.com.

SKILLS

Written/Oral skills: Authored and presented (20+) papers at professional international conferences. First author of technical peer-reviewed journal papers. Reviewer for scientific journals and conferences. One US patent pending.

Business and Leadership Experience:

- Founding member of the Brown University Biotech Interest Group (2002-3).
- Co-wrote 2 business plans on “electronic content publishing” & “investment clubs on the internet” in 1999.

Programming/Computing: Advanced computational programming (cellular automata, geometry, image processing, numerical analysis, optimization, statistics), mainly in the C language. Also experienced in Lisp (expert systems), C++ (graphics), Fortran, Matlab/Maple/Mathematica.

Languages: Bilingual French - English. Elementary Spanish and German.
