

Jean-Baptiste Bernard

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EXPERIENCE

- 2005-2008
Engineer-
Researcher PhD
grant
- INCM-CNRS – *Marseille – France*
Reading with a central scotoma
- . **Technical achievements:**
- Development of an artificial central scotoma and real-time image deformation tool using gaze-contingent display (Eyelink II / C / C++ / VSG card)
 - Development of a reading test for low-vision patients (Matlab / C)
 - Development of *Navisio*, a help reading tool for low-vision patients (C++) (in collaboration with E. Tlapale & P. Kornprobst - INRIA, Nice, France)
- . **Theoretical studies:**
- Study of word recognition and reading in low-vision patients using an artificial scotoma (reading performances & strategies)
 - Tests of reading aids on low-vision patients and simulated subjects
 - Development of a bayesian ideal observer model for reading with or without central scotoma (in collaboration with Dr Fermin Moscoso Del Prado Martin – LPC, Marseille, France)
- 2005
(6 months)
*Master
Internship*
- KAIST – *Daejeon – South Korea*
Computational Geometry for chinese character recognition
- Graph Theory
 - Fast Algorithms and Heuristics for graph matching
- 2003 – 2004
(1 year and half)
- Etablissement Emile Thomas *Draguignan* – Etablissement Rolland Garros *Nice*
Full-time Physics Teacher
- 2002
(6 months)
*Engineer
Internship*
- FRANCE TELECOM R&D – *Sophia Antipolis – France*
Routing problems for Multiprotocol Networks with Encapsulation
- Modeling of Multi-encapsulation Problems in networks
 - Heuristics to find routing paths to minimize overhead (Java)
- 2001
(6 months)
*Engineer
Internship*
- Image Department of CNRS – *CEMAGREF – Clermont-Ferrand – France*
Forms and Textures Analysis with Fractal Model
- Image Processing to analyse features (Matlab)

EDUCATION

- 2008
PhD defense expected in the end of 2008 – *University of Marseille-Provence II*
- 2005
Master of Science ESSI – *University of Nice-Sophia Antipolis*
Major: Image Processing
- 2002
Master of Engineering ISIMA – *University Blaise Pascal of Clermont-Ferrand*
Major: Computer Science & Modelling
- 1999
Bachelor of Science – *University of Nice Sophia-Antipolis*
Major: Mathematics & Physics

LANGUAGES AND TECHNICAL SKILLS

LANGUAGES	French : Mother Language English : Good Knowledge Italian : Basic Knowledge
TECHNICAL SKILLS	Operating Systems : Unix, Windows Languages : C, C++, Java, VSG libraries Software : Matlab, Statistica, DataViewer EyeTracker : EyeLink II & ELII libraries Mathematical Sciences : Image Processing, Information Theory, Optimisation and Operational Research

PUBLICATIONS

Bernard JB, Tlapale E, Castet E, Kornprobst P (2008)

Navisio, a software to help low-vision patients to read PDF documents

French Society of Ophthalmology – Paris, France

Bernard JB, Scherlen AC, Castet E (2007)

Page mode reading with simulated scotomas : a modest effect of interline spacing on reading speed

Vision Research, 47(28):3447-59

Bernard JB, Scherlen AC, Castet E (2007)

Vertical interline spacing is not a major limiting factor of reading speed with a central artificial scotoma

European Conference on Visual Perception, Arezzo, Italia

Bernard JB, Scherlen AC, Castet E (2007)

Effect of line spacing on reading speed in normally-sighted subjects with an artificial scotoma

Vision Science Society 2007, Sarasota, Florida

Société Française des Neurosciences 2007, Montpellier, France

Tlapale E, Bernard JB, Castet E, Kornprobst P (2006)

A Gaze-Contingent system to facilitate reading for patients with central scotomas

INRIA Technical Report RT-0326

OTHER PRESENTATIONS

Peripheral word recognition studied with an artificial scotoma (2008)

Invited by Jonathan Grainger, LPC, Marseille, France

Study & Development of reading aid systems for patients with central scotoma (2007)

Colloque de l'EDSVS, Marseille, France

SOFTWARES

Bernard JB, Castet E, Calabrese E (2008)

T-SOLAIRE : a reading Test software for low Vision Patients

Protection n° DI 01951-01 (French Software Agency)

Tlapale E, Bernard JB, Castet E, Kornprobst P (2008)

Navisio : a software to help low-vision patients in reading complex documents

MISCELLANEOUS

Photography, Sea-fishing, Soccer, Travel