
Brian J. Stankiewicz, Ph.D.

Principal Data Scientist
3M Corporate Research Labs
Artificial Intelligence Group

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<http://Sequentropy.com>

PROFESSIONAL EXPERIENCE:

Corporate Research Systems Lab

Sept. 2017-Today

Principal Data Scientist: Artificial Intelligence Lab

Responsibilities.

- Create and lead three cross functional teams (AI, software, electrical engineering, mechanical engineering & user experience)
- Identify and develop new technology system opportunities utilizing AI.
- Lead the development of AI-SaaS platform development to support AI within 3M.

Accomplishments

- Identified 20+ technical members to be part of cross-functional teams.
 - Kicked off three new scrum teams.
 - Identified new 3M system opportunity in personal safety and leading team development.
 - Identified intellectual property opportunities in new space.
 - 2018 Circle of Technical Excellence Award
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PROFESSIONAL EXPERIENCE:

January 2014-2017

3M Health Information Systems

Principal Data Scientist: Data Science Lab

Responsibilities.

- Created the Health Information Systems (HIS) Data Science Lab.
- Product owner for proof-of-concept opportunity with Google-Verily/3M Performance Matrix collaboration that had both 3M and Google-Verily scientists and engineers.
- Technical lead for Performance Matrix (3M-Google-Verily) product development
- Defined the technical direction for HIS in Data Science and Analytics.
- Technical member of many 3M HIS acquisitions.

Accomplishments

- Proof of Concept with Google-Verily that led to business and technical partnership
 - <https://verily.com/projects/population-health/healthcare-performance-measurement/>.
 - Went from no Data Science in HIS to a lab of 10+ data scientists and engineers.
 - Four patent applications
 - One commercialized product
 - 2017 Circle of Technical Excellence Award
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Oct. 2007 – Jan. 2014

3M Corporate Research Labs

(7 Years)

Technical Lead: Computational Intelligence group.

Responsibilities

- Develop new 3M opportunities in data science, computer science and computer vision.
- Build research and project teams that delivered new technology capability and products.
- Communicate with internal 3M divisions and senior executives to create awareness of capabilities and opportunities in **Computational Intelligence**
- Present to external business leaders and university to make others aware of our capabilities for business and recruiting purposes.

Accomplishments

- Served as the technical lead (10 people) and the product owner (agile process) for the 3M Visual Attention Service (<http://VAS.3M.com>).
- Created the Computational Intelligence Lab (CI Lab, now the AI Lab).
 - Hired 10 Ph.D. scientists in Computer Science, Electrical Engineering and Applied Mathematics and integrated 7 existing 3M employees.
- Delivered new computer vision technology to Traffic Safety System division partner.
- 2011 Corporate level technical achievement award
- 3 patent applications; 3 granted patents
- 4 patents to protect product technology.

Assistant Professor at the University of Texas at Austin.

July 2001-July 2007

Director: Human Shape and Space Perception Lab

Responsibilities

- Recruit Ph.D. candidates and support staff.
- Conduct new-to-the-world basic research in the area of human & computer vision in addition to human & robotic spatial navigation
- Teaching undergraduate and graduate courses

Accomplishments

- ~\$2 MM in grant support
- Built the largest research free-walking VR space in the country (yr. 2000 @ ~1100 ft²).
- 6 Ph.D. Students placed in industry (Google, Amazon) and Universities
- > 50 peer review publications

Postdoctoral Research Associate at the University of

July 1997-July 2001

Minnesota, Twin Cities.

- Basic and applied research in human and computer vision
- Basic and applied research in human spatial navigation

EDUCATION

- Ph.D. Cognitive Science 1997, University of California, Los Angeles.
- M.A. Cognitive Science 1994, University of California, Los Angeles.
- B.A. Cognitive Psychology 1991, University of California, Irvine.

INTELLECTUAL PROPERTY:

Granted Patents	
US-7620493	System, method and apparatus for providing navigational assistance
US-8442328	SYSTEMS AND METHODS FOR EVALUATING ROBUSTNESS
US-8478111	Systems and methods for optimizing a scene
US-8577156	SYSTEMS AND METHODS FOR MULTI-PERSPECTIVE SCENE ANALYSIS
US-8458103	System and method for concurrently conducting cause-and-effect experiments on content effectiveness and adjusting content distribution to optimize business objectives
US-8811753	Systems and methods for evaluating robustness of saliency predictions of regions in a scene
US-9070036	Systems and methods for note recognition
US-9131204	SYSTEM AND METHODS FOR OPTIMIZING A SCENE
US-9519916	System and method for concurrently conducting cause-and-effect experiments on content effectiveness and adjusting content distribution to optimize business objectives
US-9563696	Systems and methods for managing notes
US-9737257	Estimating and predicting tooth wear using intra-oral 3D scans
US-9070036	Systems and methods for note recognition
Patent Applications	
US-2010086200	Systems and methods for multi-perspective scene analysis
US-2010174671	System and method for concurrently conducting cause-and-effect experiments on content effectiveness and adjusting content distribution to optimize business objectives

US-2014294236	Systems and methods for note recognition
US-2014297646	Systems and methods for managing notes
US-2013230253	Systems and methods for evaluating robustness of saliency predictions of regions in a scene
WO-2010039976	Systems and methods for multi-perspective scene analysis
US-2013158963	Systems and methods for improving visual attention models
US-2013259448	Systems and methods for optimizing a scene
US-2015135046	Systems and methods for managing notes
US-2016132749	Systems and methods for computing and presenting results of visual attention modeling
US-2016220173	Estimating and predicting tooth wear using intra-oral 3d scans
US-2017039326	Identification and analysis of copied and pasted passages in medical documents
US-2017361259	Systems and methods for predicting hvac filter change
US-2016300075	Systems and method for obfuscating data using dictionary
US-2016321468	Obfuscating data using obfuscation table
US-2017245785	Impairment detection
US-2017300635	Identification of codable sections in medical documents
US-2017363772	Batch authentication of materials for automated anti counterfeiting
US-2016354014	Activity Recognition Using Accelerometer Data
WO-2017079047	Identification of low-efficacy patient population
WO-2017180475	Query optimizer for combined structured and unstructured data records
CA-2969534	Systems and methods for generating random numbers using physical variations present in material samples
WO-2017079012	Medical protocol evaluation

Peer Reviewed External Publications/Presentations (3M)

Schumacher J.F., Van Derlofske, J., **Stankiewicz B.J.**, Lamb D., and Lathrop A. (2013). PQM: A Quantitative Tool for Evaluating Decisions in Display Design (2013) *Society for Information Displays*

Stankiewicz B.J., Anderson, N.J., Moore, R.J. (2010). Using Performance Efficiency for Testing and Optimizing Visual Attention Models. Proceedings of SPIE-IS&T Electronics Imaging, Vol 7867

Peer Reviewed External Publications/Presentations (Pre-3M Academic research)

> 50 peer reviewed publications >800 Citations.

- <http://scholar.google.com/citations?user=tEr3OCsAAAAJ&hl=en>