

SUMMARY OF CREDENTIALS

Michael A. Covington, Ph.D. mcovington@computer.org 706-207-4262

Consultant

Covington Innovations

285 Saint George Drive

Athens, Georgia 30606 U.S.A.

Senior Member, IEEE

Listed in *Who's Who in the World* and related publications

Director of Research, FormFree, Inc.

Senior Research Scientist Emeritus, Institute for Artificial Intelligence, U. of Georgia

Recent projects

FormFree, Inc., Athens, Georgia

Application of artificial intelligence to credit scoring and other financial domains

Strategic Analysis Enterprises, Inc., Williamsburg, Virginia

Software to extract information and sentiment from news media and social media (in English and Spanish)

North Shore Health System, Long Island, New York

Computer-aided linguistic analysis of human speech for a psychiatric research project

Confidential client, U.S. east coast

Application of machine learning to classification of financial transaction descriptions

Confidential client, U.S. west coast

Development and refinement of patent claims

Coraid, Inc., Athens, Georgia

Documentation writing, research, and development

JTB Communications, Danielsville, Georgia

Windows software development project

GlaxoSmithKline Plc, Cambridge, England

Confidential research project

Webtone Inc., Atlanta

Confidential software development project

Multiple clients

On-site instruction in Prolog and logic programming

Multiple clients

Evaluation of natural language software for possible investment

Degrees

B.A. 1977 summa cum laude, co-valedictorian, University of Georgia.

M.Phil. 1978, Cambridge University.

Ph.D. 1982, Yale University.

Research areas

Computer and AI ethics and risks

Natural language understanding

Information extraction and retrieval

Computational psycholinguistics

Logic modeling of electronic commerce

Artificial intelligence and logic programming on microcontrollers

Programming languages

Prolog, LISP, Pascal, Delphi, C, C++, C#, Java, PL/I, FORTRAN, BASIC, Visual Basic, 8086/8088/80286 assembly, PIC assembly, 8051 assembly, AVR assembly, 68HC11 assembly, others.

Human languages

Full reading knowledge of Latin, Greek, French, Spanish, German.

Working knowledge of Italian, Biblical Hebrew.

Books and articles (selected)

All authored by Michael A. Covington (alone) unless indicated.

Over 250 magazine articles not listed individually here, including the entire "Q&A" column in Electronics Now, 1995–2000 and numerous technical articles in computer magazines since 1983.

Prolog Programming in Depth, by Michael A. Covington, D. Nute, and A. Vellino. Chicago: Scott, Foresman, 1988. Second edition published by Prentice-Hall, 1997.

Natural Language Processing for Prolog Programmers. Prentice-Hall, 1993.

"Efficient Prolog: a practical tutorial." *Artificial Intelligence Review* 5 (1991) 273–287.

"A fundamental algorithm for dependency parsing." *Proceedings*, SEACM 2001.

“The technological relevance of natural language pragmatics.” In *Cognitive Systems: Human Cognitive Models in Systems Design*, ed. by Michael L. Bernard and J. Chris Forsythe. Hillsdale, N.J.: Erlbaum, 2005.

“The number of distinct alignments of two strings.” *Journal of Quantitative Linguistics* 11:173–182 (2004).

“Schizophrenia and the structure of language: the linguist’s view,” by Michael A. Covington, C. Brown, C. He; L. Naçi, B. Fjordbak, J. Brown. *Schizophrenia Research* 77(1):85-98 (2005).

“Sentiment and discourse analysis: theory, extraction, and application,” by S. M. Shellman, Michael A. Covington, and M. Zangrilli. *Socio-Cultural Analysis with the Reconnaissance, Surveillance, and Intelligence Paradigm* (Topical Strategic Multi-Layer Assessment (SMA) and U.S. Army Engineer Research Development Center (ERDC) Multi-Agency/Multi-Disciplinary White Papers in Support of National Security Challenges), ed. by Charles Ehlschlaeger, pp. 66–82. U.S. Department of Defense, 2014.

Dictionary of Computer and Internet Terms, by Douglas Downing, Michael A. Covington, et al. Woodbury, New York: Barron’s Educational Series, 12 editions, latest in 2018.

Astrophotography for the Amateur, by Michael A. Covington. Cambridge University Press. First edition, 1985; revised edition, 1991; second edition, 1999.

Digital SLR Astrophotography, by Michael A. Covington. Cambridge University Press, 2007, second edition 2018.

Electronic Experiments for Young Learners, by Michael A. Covington, Benjamin J. Barrett, Philip N. Barrett, Mary C. Barrett, Emily E. Barrett, Dorothea R. Barrett, and Stephen P. Barrett. Amazon, 2025.

Computer Ethics: A Quick Tour. In progress.