

SUMMARY OF CREDENTIALS

Michael A. Covington, Ph.D. mcovington@computer.org

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

Senior Research Scientist Emeritus, Institute for Artificial Intelligence, University of Georgia

Seeking

Consulting or contract projects totaling no more than 1/3 time, in the following and related areas:

- **Cutting through the generative AI hype and using AI effectively**
- **Computer and AI ethics and safety (see my new book)**
- **Devising innovative computer solutions to unsolved problems**
- **Logic- and knowledge-based AI, including Prolog language**
- **Natural language processing (including sentiment, message classification)**
- **Computational psycholinguistics and related fields**
- **Scientific, analytic, and engineering-related software development**
- **Expressing technical concepts clearly to non-experts (speaking, writing, publishing)**
- **Evaluating promising technology for investors**
- **Technical assistance preparing or evaluating software-related patents**

Limitation: As caregiver of two disabled family members, I am not able to travel or relocate. I am well set up for video conferencing.

Background

I helped found the University of Georgia Institute for Artificial Intelligence and was associate director for many years. During that time I did some consulting for business and industry. Upon retiring in 2013, I turned my efforts entirely to consulting. A large project that had occupied most of my time wound down in 2025, leaving me available to seek others.

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, with some demonstrations with other languages)

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.

Programming languages

Prolog, LISP, Pascal, Delphi, C, C++, C#, Python, Java, JavaScript, PL/I, FORTRAN, BASIC, Visual Basic, 8086/8088/80286 assembly, PIC assembly, 8051 assembly, AVR assembly, 68HC11 assembly, others. Environments: Windows, Linux, other UNIX derivatives, Plan 9, Docker, 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.

From Hackers to Chatbots: A Quick Tour of Computer and AI Ethics, by Michael A. Covington. Wisdom/Work Publications, 2025.

How to Write More Clearly, Think More Clearly, and Learn Complex Material More Easily, by Michael A. Covington. In preparation.