

## **Anthony Almudevar - Professional Expertise**

**I am a practicing statistician with 30+ years experience in consulting, research and teaching.**

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**I have a consulting and/or publication record related to the following methodologies and application areas:**

- ANOVA and related models
  - Generalized linear models (GLM)
  - GEE modeling
  - Random and mixed effects modeling
  - Bayesian modeling (computational, parametric)
  - Survival analysis
  - Total least squares regression
  - Causal inference
  - Propensity score matching
  - Classification
  - Graphical models (Bayesian networks, interaction networks, Boolean networks)
  - Time series
  - Power analysis, grant preparation
  - Psychometric data modeling
  - Clinical trials
  - Immunological data modeling
  - Signal processing and *Smart Home* monitoring
  - Genomic data analysis
  - Biomarker design and evaluation
  - Machine learning
  - Artificial neural networks
  - Reinforcement learning and Markov decision processes
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**I have experience with most commonly used statistical software:**

- R
  - STATA
  - SAS
  - SPSS
  - MINITAB
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**I have experience programming in the following languages and application areas:**

- Python
  - R
  - C++
  - Pascal
  - Creation of Delphi applications
  - Creation of R packages, with interface to C++ code
  - Bioconductor
  - Typesetting with Latex
  - Tensorflow machine learning library
  - OpenAI artificial intelligence platform
  - Experience with Microsoft Office applications (including add-ins and VB programming)
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**I have experience in technical and educational writing and platforms:**

- Learning content management systems (e.g., Blackboard)
  - Collaborative project tools (e.g., Overleaf, Dropbox, GitHub)
  - Grant writing, especially submissions to National Institutes of Health (NIH)
  - Author of published textbook
  - Author of close to 100 peer-reviewed publications
  - Considerable experience writing educational material
  - Website creation and management ([www.anthonymudevar.com](http://www.anthonymudevar.com))
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**See also detailed CV at [www.anthonymudevar.com](http://www.anthonymudevar.com), along with examples of my work.**