

CONTACT  
INFORMATION

Department of Statistics  
University of Connecticut  
Storrs, CT, 06269-4120

*Room:* 315, Philip E. Austin Building  
*Phone:* (860)-486-5455  
*E-mail:* haim.bar@uconn.edu  
*Web site:* <http://stat.uconn.edu/haim-bar/>

RESEARCH  
INTERESTS

Statistical models; shrinkage estimation; Bayesian High-Dimensional Data; high throughput applications in biology (e.g., genomics, brain imaging); applications in econometrics; Bayesian statistics; machine learning.

EDUCATION

**Cornell University**, Ithaca, New York USA

Ph.D. in Statistics, 2012

Dissertation Topic: “*Parallel Testing, and Variable Selection – a Mixture-Model Approach with Applications in Biostatistics*”

Advisors: James Booth (Chair), Martin T. Wells, Robert L. Strawderman

M.Sc. in Statistics

**Yale University**, New Haven, Connecticut USA

M.Sc. in Computer Science

**The Hebrew University**, Jerusalem, Israel

B.Sc. in Mathematics, Cum Laude

ACADEMIC  
EXPERIENCE

**University of Connecticut**, Storrs, Connecticut, USA

*Assistant Professor*

**August 2013 - Present**

I am an assistant professor at the University of Connecticut, in the Department of Statistics. I am affiliated with the Institute for Systems Genomics (ISG), and with the Institute for Collaboration on Health, Intervention, and Policy (InCHIP).

Teaching:

STAT 5005: Introduction to Applied Statistics

STAT 5505: Applied Statistics I

STAT 5605: Applied Statistics II

STAT 3515Q/5515: Design of Experiments (*Excellence in teaching recognition - Spring 2014, Spring 2017*)

STAT 3675Q: Statistical Computing (*Excellence in teaching recognition - Spring 2016*)

STAT/BIST 6494: Data Management in SAS and R (*Excellence in teaching recognition - Fall 2017*)

STAT/BIST 6494: Statistical Consulting (*Excellence in teaching recognition - Spring 2018*)

**Cornell University**, Ithaca, New York, USA

*Statistical Consultant*

**July 2011 - July 2013**

As a member of the Cornell Statistical Consulting Unit (CSCU) I provided statistical consulting to Cornell faculty and staff. I handled a diverse range of applications, including economics, business, genomics, nutrition, sociology, etc. I presented a wide range of topics in workshops, and as a guest lecturer in courses at Cornell, including on Bayesian statistics, missing data, multiple testing, etc.

*Teaching:* BTRY 6020: Statistical Methods II

*PostDoc, Department of Statistical Science*

**August 2012 - July 2013**

I collaborated with the Melnick Lab at the Weill Cornell Medical College. I developed new methods and applied existing techniques to analyze very large data sets involving up to millions of features. Primarily, we focused on methylation data for epigenetic analysis, and RNA sequencing for transcription regulation analysis.

*Research Assistant*

**July 2011 - December, 2011**

I worked with Professor Francesca Molinari on the theory and application of sharp identification regions. Implemented a fast and accurate estimation method based on Support Vector Machines. We applied the method to linear prediction, and game theory problems.

*Graduate Student*

**August 2005 - December 2011**

M.Sc. and Ph.D. programs.

*Head Teaching Assistant*

**August 2009 - December 2010**

BTRY 6010, Statistical Methods I (*Outstanding TA Award* 2010-2011).

*Teaching Assistant*

**August, 2005 - May 2010**

BTRY 6020, Statistical Methods II (graduate level class).

BTRY 6010, Statistical Methods I (graduate level class).

ORIE 474, Statistical Data Mining.

CS 101M, Introduction to Computer Programming (*Outstanding TA Award*, 2006).

MATH 335/COMS 480, An Introduction to Cryptology.

PUBLICATIONS

Fox, E. L.; Peltó, G. H.; Bar, H.; Rasmussen, K. M.; Young, S. L.; Debrosse, M. G.; Rouzier, V. A.; Pape, J. W.; Pelletier, D. L. *Capturing changes in HIV-infected, breastfeeding mothers' cognitive processes from before delivery to five months postpartum: An application of the pile sorting technique in Haiti*. 2018. Current Developments in Nutrition; Volume 2, Issue 6, 1 June 2018, nzy017, <https://doi.org/10.1093/cdn/nzy017>. **Editor's Choice**.

Chen, K., Mishra, N., Smyth, J., Bar, H., Schifano, E., Kuo, L., Chen, M.-H. *A tailored multivariate mixture model for detecting proteins of concordant change in the pathogenesis of Necrotic Enteritis*. 2018. Journal of the American Statistical Association. <http://dx.doi.org/10.1080/01621459.2017.1356314>

Bar, H. *Missing Data - Mechanisms and Possible Solutions*. 2017. Cultura y Educación / Culture and Education, 29(3), pages 492-525.

Bar, H.; Mentch, L. *R-CMap - An Open-Source Software for Concept Mapping*. 2017. Evaluation and Program Planning - Special Issue on: Concept Mapping at 25: Development, Applications, and Future Directions. 60:284-292. doi: 10.1016/j.evalprogplan.2016.08.018. Epub 2016 Aug 28.

Rom, O.; Korach Rechtman, H.; Hayek, T.; Danin-Poleg, Y.; Bar, H.; Kashi, Y.; Aviram, M. *Acrolein increases macrophage atherogenicity in association with gut microbiota remodeling in atherosclerotic mice: protective role for the polyphenol-rich pomegranate juice*. 2017. Archives of Toxicology, 2017 Apr; 91(4):1709-1725. doi: 10.1007/s00204-016-1859-8. Epub 2016 Sep 30.

Hamasaki-Katagiri, N.; Lin, B.; Simon, J.; Hunt, R.; Schiller, T.; Russek-Cohen, E.; Komar, A.; Bar, H.; Kimchi-Sarfaty, C. *The Importance of mRNA Structure in Determining the Pathogenicity of Synonymous and Non-synonymous Mutations in X-linked Genes*. 2017. Haemophilia 2017 Jan; 23(1):e8-17

Tako, E.; Bar, H.; Glahn, R. P. *The combined application of the Caco-2 cell bioassay coupled with in vivo (Gallus gallus) feeding trial represents an effective approach to predicting Fe bioavailability in humans*. Nutrients. 2016 Nov 18;8(11). pii: E732.

Molinari, E.; Bar, H.; Pyle, A. M.; Patrizio, P. *Transcriptome analysis of human cumulus cells reveals hypoxia as the main determinant of follicular senescence*. 2016. *Molecular Human Reproduction* Vol 22 (8): pages 866-876 doi:10.1093/molehr/gaw038

Schifano, E. D.; Bar, H.; Harel, O.. *Methods for analyzing secondary outcomes in public health case-control studies*. 2015, "Innovative Statistical Methods for Public Health Data", Ding-Geng Chen and Jeffrey Wilson, editors. Springer. Pages 3-15.

Bar, H.; Booth, J.; Wells, M. T. *A Bivariate Model for Simultaneous Testing in Bioinformatics Data*. 2014. *Journal of the American Statistical Association*. June 2014, Vol. 109, No. 506, Applications and Case Studies. DOI: 10.1080/01621459.2014.884502

Finkelstein, J. L.; Pressman, E. K.; Cooper, E. M.; Kent, T. R.; Bar, H.; O'Brien, K.y O. *Vitamin D Status Affects Serum Metabolomic Profiles in Pregnant Adolescents* 2014. *Reproductive Sciences*. doi: 10.1177/1933719114556477

Alexander, E. L.; Gardete, S.; Bar, H.; Wells, M. T.; Tomasz, A.; Rhee, K. Y. *Intermediate-Type Vancomycin Resistance (VISA) in Genetically-Distinct Staphylococcus aureus Isolates is Linked to Specific, Reversible Metabolic Alterations*. May 9, 2014. *PLOS ONE*. Vol. 9, No. 5, pages e97137.

Coate, J. E.; Bar, H.; Doyle, J. J. *Extensive Translational Regulation of Gene Expression in an Allopolyploid (Glycine dolichocarpa)*. 2014. *The Plant Cell Online*. Vol. 26, No. 1.

Athiphunamphai, N; Bar, H.; Cooley, H. J.; Padilla-Zakour, O. I. *Heat treatment and turbo extractor rotational speed effects on rheological and physico-chemical properties of varietal applesauce*. 2014. *Journal of Food Engineering*. Vol. 136,

Garrett-Bakelman, F. E.; Li, S.; Hricik, T.; Chung, S. S.; Bar, H.; Brown, A. L.; Patel, J. P.; Rapoport, F.; Liu, L.; Sheridan, C.; Ishii, J.; Zumbo, P.; Gandara, J.; Lewis, I. D.; To, L. B.; Becker, M. W.; Guzman, M. L.; D'Andrea, R. J.; Michor, F.; Park, C. Y.; Carroll, M.; Levine, R. L.; Mason, C. E.; Melnick, A. M. *Epigenetic deregulation in relapsed acute myeloid leukemia*. 2013. *Blood*. Vol. 122(21), pages 2499-2499.

Jiang, X.; Bar, H.; Yan, J.; Jones, S.; Brannon, P. M.; West, A.; Perry, C. A.; Ganti, A.; Pressman, E.; Devapatla, S.; Vermeylen, F.; Wells, M. T.; Caudill, M. A. *A higher maternal choline intake among third-trimester pregnant women lowers placental and circulating concentrations of the antiangiogenic factor fms-like tyrosine kinase-1 (sFLT1)*. 2013. *The FASEB Journal*, Vol. 27, No. 3, pages 1245-1253.

Bar H. and Lillard D. *Accounting for Heaping in Retrospectively Reported Event Data – A Mixture Model Approach*. 2012. *Statistics in Medicine*, DOI: 10.1002/sim.5419.

Bar, H.; Booth, J.; and Wells, M. T. January, 2012. *A Mixture-Model Approach for Parallel Testing for Unequal Variances*. *Statistical Applications in Genetics and Molecular Biology*: Vol. 11, Iss. 1, Article 8.

Jiang, X.; Bar, H.; Yan, J.; West, A.; Perry, C. A.; Malysheva, O. V.; Devapatla, S.; Pressman, E.; Vermeylen, F. M.; Wells, M. T.; Caudill, M. A. *Pregnancy Induces Transcriptional Activation of the Peripheral Innate Immune System and Increases Oxidative DNA Damage among Healthy Third Trimester Pregnant Women*. 2012. *PLoS ONE* 7(11): e46736. doi:10.1371/journal.pone.0046736

Jiang, X.; Yan, J.; West, A.; Perry, C.; Malysheva, O.; Bar, H.; Wells, M.; Devapatla, S.; Pressman, E.; Caudill, M. March 2012. *Pregnancy status and choline intake alter DNA integrity, epigenetic marks and gene expression*. *The FASEB Journal*, Vol. 26:116.1,

Rosenbaum M.; Bar H.; Beg Q.; Segré D.; Booth J.; Cotta M.; Angenent L., February 2012. *Transcriptional analysis of Shewanella oneidensis MR-1 with an electrode compared to soluble Fe(III) or oxygen as terminal electron acceptor*. PLoS ONE, 7(2):e30827.

Bar H. and Schifano E. D., February 2011. *Empirical and fully Bayesian approaches for random effects models in microarray data analysis*. Statistical Modelling 11(1):71-88.

Jiang, X.; Yan, J.; West, A.; Perry, C.; Malysheva, O.; Bar, H.; Wells, M.; Devapatla, S.; Pressman, E.; Caudill, M. 2011. *A higher maternal choline intake favorably alters placental gene expression of biological pathways related to disease risk*. The FASEB Journal, Vol. 25:599.5,

Menda G., Bar H.; Arthur B.; Rivlin P.; Wyttenbach R.; Strawderman R.; Hoy R. 2011. *Classical Conditioning Through Auditory Stimuli in Drosophila: Methods and Models* The Journal of Experimental Biology 214:2864-2870.

Bar H., Booth J., Schifano E. D. and Wells M. T. 2010. *Laplace Approximated EM Microarray Analysis: An Empirical Bayes Approach for Comparative Microarray Experiments*. Statistical Science 2010, 25(3):388-407.

Rosenbaum M. A.; Bar H.; Beg Q. K.; Segré D.; Booth J.; Cotta M. A.; Angenent L. T. October 2010. *Shewanella oneidensis in a lactate-fed pure-culture and a glucose-fed co-culture with Lactococcus lactis with an electrode as electron acceptor*. Bioresource Technology, 102(3):2623-2628.

Bar H.; Miranker W.; Ambash A. 2003. *Competition and Cooperation in Neuronal Processing*. IEEE Transactions on Neural Networks 14(4):860-8.

UNDER REVIEW  
OR IN PREPARATION

Bar, H.; Liu, K. *Empirical Bayes Methods in Variable Selection*.

Bar, H.; Booth, J.; Wells, M. T.; Liu, K. *Facilitating High Dimensional Transparent Classification Via Empirical Bayes Variable Selection*.

Bar, H.; Booth, J.; Wells, M. T. *A Scalable Empirical Bayes Approach to Variable Selection in Generalized Linear Models*. <https://arxiv.org/abs/1803.09735>, Mar. 2018.

Bar, H.; Bang, S. *A Mixture Model to Detect Edges in Sparse Co-expression Graphs*. <https://arxiv.org/abs/1804.01185>, Apr. 2018.

Bar, H.; Schifano, E. D. *Differential variation and expression analysis*. <https://www.biorxiv.org/content/early/2018/03/05/276337.full.pdf>, 2018.

Bar, H.; Schifano, E. D. *DVX: an R package for Differential Variation and eXpression analysis*. <https://haim-bar.uconn.edu/software/DVX/>, 2018.

Bar, H. *Robust Variance Estimation*.

GRANTS AND  
CONTRACTS

NSF Award #: 1612625. PI. *Variable Selection in the High Dimensional, Low Sample Size Setting Beyond the Linear Regression and Normal Errors Model*. Funding period: 8/15/16-7/31/19. Funding amount \$150,000.

National Science Center Poland. *Identification of transcriptomic markers of maize resistance to cereal aphids*. PI Dr. Hubert Sytykieticz. Funding period: 2/9/17-2/8/20.

Travelers. *Modeling and analysis of large insurance claim and occurrence data: A partnership between UConn and Tavelers*. PI: Dr. Dipak Dey, co-PIs: Haim Bar, Kun Chen, Elizabeth Schifano, Xiaojing Wang. Funding period: 8/1/17-7/31/18. Funding amount \$137,881.

PATENTS

- U.S. Patent 9384677 (granted July 5, 2016)  
U.S. Patent 20150213730 A1 (Publication Date: July 30, 2015)  
U.S. Patent 9076342 B2 (granted July 7, 2015)  
U.S. Patent 20090208910 A1 (Publication Date: August 20, 2009)  
*Automated execution and evaluation of network-based training exercises.*  
Inventors: Brueckner, S. K.; Adelstein, F. N.; Bar, H.; Donovan, M.
- U.S. Patent 20150143355 (Publication Date: May 21, 2015)  
*Service Oriented Architecture Version and Dependency Control.*  
Inventors: Tingstrom, D. J.; Joyce, R. A.; Stillerman, M. A.; Brueckner, S. K.; Bar, H.
- U.S. Patent 8,984,396 (granted March 17, 2015)  
*Identifying and representing changes between extensible markup language (XML) files using symbols with data element indication and direction indication.*  
Inventors: Tingstrom, D. J.; Joyce, R. A.; Stillerman, M. A.; Brueckner, S. K.; Bar, H.
- U.S. Patent 8,898,285 (granted November 25, 2014)  
*Service oriented architecture version and dependency control*  
Inventors: Tingstrom, D. J.; Joyce, R. A.; Stillerman, M. A.; Brueckner, S. K.; Bar, H.
- U.S. Patent 8,286,249 (granted October 9, 2012)  
U.S. Patent 7,748,040 (granted June 29, 2010);  
*Attack correlation using marked information.*  
Inventors: Adelstein F. N., Bar H., Alla P. and Proskourine N.

SHORT COURSES

R/Bioconductor workshop - the Technion, Haifa. November, 2016 (co-taught with Dr. Martin Morgan).

INVITED TALKS

*A Mixture Model to Detect Edges in Sparse Co-expression Graphs.* Bayesian Modeling, Computation, and Applications, Storrs, CT, May 2018.

*A Scalable Empirical Bayes Approach to Variable Selection in Generalized Linear Models.*

- The 34th Quality and Productivity Research Conference, Storrs, CT, June 2017.
- The 10th ICSC International Conference, Shanghai, China. December, 2016.
- Temple University, Research Colloquium, Department of Statistical Science, April 2017.
- Baruch College, CUNY, Colloquium, Department of Information Systems and Statistics Zicklin School of Business, November 2016.

*A Scalable Empirical Bayes Approach to Variable Selection.*

- 2016 Joint Statistical Meetings, Chicago, IL. July, 2016.
- Joint UCONN/UMASS Statistics Colloquium, University of Massachusetts Amherst, MA. October 7, 2015
- Statistics Seminar, Department of Mathematics - University of Maryland. October 1, 2015.
- Colloquium - Mathematical Biosciences Institute - The Ohio State University. Sep. 21, 2015

*An Empirical Bayes Approach to Variable Selection and QTL Analysis.*

- Purdue University, Research Colloquium, Statistics Department, October 2014.
- Modern Modeling Methods ( $M^3$ ) Conference, Storrs, CT, May 2014.

*Model-based approaches for big-data problems, with applications in genomics.* University of Connecticut, Institute for Systems Genomics Annual Networking Workshop. Storrs, CT. May 13, 2014.

*A Bivariate Model for Simultaneous Testing in Bioinformatics Data*

- 3rd International Conference and Exhibition on Biometrics & Biostatistics, Baltimore, MD, October 2014.
- University of Iowa, February 2013
- NIH/NCI, March 2013
- University of Connecticut, February 2013
- University of Rochester, February 2013
- Cornell University, October 2012

*Accounting for Heaping in Retrospectively Reported Event Data - A Mixture Model Approach.* ICSA Applied Statistics Symposium in New York City, NY, USA. June 2011.

*A Heap of Trouble? Accounting for Mismatch Bias in Retrospectively Collected Data on Smoking.* 3rd Biennial Conference of the American Society of Health Economists, Ithaca, NY, June 2010.

CONFERENCE  
PRESENTATIONS

*A Bivariate Index for Stock Classification.* The 30th International Workshop on Statistical Modelling, Johannes Kepler University Linz, Austria. July 2015 (poster presentation by Bar E.)

*Statistical Analysis of Gene-expression Networks.* The 29th New England Statistics Symposium, University of Connecticut, Storrs, CT, April 25, 2015 (poster presentation by S-J Bang).

*An Empirical Bayes Approach to Variable Selection and QTL Analysis.* Frontiers Of Hierarchical Modeling In Observational Studies, Complex Surveys And Big Data: A Conference Honoring Professor Malay Ghosh. College Park, MD. May 29-31, 2014.

*A Mixture-Model Approach for Testing for Unequal Variances in Microarray Data.* Conference of Applied Statistics Ireland, Galway, Ireland, 2011.

*An Empirical Bayes Approach to Variable Selection and QTL Analysis.* In the Proceedings of the 25th International Workshop on Statistical Modelling, Glasgow, Scotland, 2010.

*Bayesian Approaches to Random Effects Models in Microarray Analysis.* In the Proceedings of the 24th International Workshop on Statistical Modelling, Ithaca, NY, USA. 2009 (best presentation award, Elisabeth Schifano).

JOURNAL REFEREE

Annals of Applied Statistics  
Bayesian Analysis  
Biometrics  
Behavior Research Methods  
BMC bioinformatics  
Conservation Biology  
Evaluation and Program Planning  
International Statistical Review  
Journal of Agricultural, Biological, and Environmental Statistics  
Journal of Computational and Graphical Statistics  
Journal of Statistical Modeling  
Journal of Statistical Planning and Inference  
Journal of Statistical Theory and Practice  
Journal of the American Statistical Association  
Methodology & Computing in Applied Probability  
PLOS ONE  
Statistical Analysis and Data Mining  
Statistics and Its Inference

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Statistics in Medicine

- REFEREE - OTHER
- National Science Foundation (NSF), 2017.
  - The Donaghue Medical Research Foundation:
    - “Greater Value Portfolio” - Review Board Member, 2015, 2016, 2017.
    - “Another Look” - Review Board Member, 2016.
  - National Aeronautics and Space Administration - Review Board Member, 2016.
  - International Chinese Statistical Association - Student Award Committee for the 2016 ICISA International Conference in Shanghai, China, Dec. 19-22, 2016.
  - New England Statistics Symposium - IBM Student Award Committee, 2015.
- CONFERENCE ACTIVITIES
- Co-chair of the organizing committee: The 31st New England Statistics Symposium, Storrs, CT, 2017.
  - Co-chair of the organizing committee: The 34th Quality and Productivity Research Conference, Storrs, CT, 2017.
  - Session chair - Joint Statistical Meeting, 2016 (Chicago, IL). Session title: R Tools for Statistical Computing
  - Session chair - Joint Statistical Meeting, 2015 (Seattle, WA). Session title: Methods in Machine Learning and Data Mining.
  - Session chair - 3rd International Conference and Exhibition on Biometrics & Biostatistics, 2014.
- DEPARTMENT AND UNIVERSITY COMMITTEES
- Distinguished Statistician Colloquium - the Pfizer Series (chair).
  - Graduate program curriculum - applied statistics (Chair).
  - Computing.
  - New England Statistics Society.
  - New England Statistics Symposium, 2017.
  - Gratis faculty appointment (Chair).
  - Visiting assistant professor search committee.
  - Graduate students and distinguished alumni awards.
  - UConn’s Q-Center.
  - Environmental health and safety (Chair).
  - Library / tech reports (Chair).
- OTHER SERVICES
- Health Policy Statistics Section communication officer (July 2016-June 2019).
  - Health Policy Statistics Section best student paper review board (for JSM 2017).
  - The 10th ICISA International Conference Young Researcher Award review committee.
  - New England Statistics Society co-chair of the committee to establish the society’s journal.
- PH.D. ADVISING
- Liu, Kangyan (major advisor)
  - McLaughlin, Paul (major advisor)
  - Shaffer, Ellis (associate advisor)
  - Zha, Ruochen (associate advisor)
  - Luo, chongliang, 2017 (associate advisor)
  - Mishra, Aditya, 2017 (associate advisor)
  - Mishra, Neha, 2017 (associate advisor)
  - Larose, Chantal, 2015 (associate advisor)
  - Ouyang, Guang, 2015 (associate advisor)
- PROFESSIONAL EXPERIENCE
- ATC-NY, Ithaca, New York USA**
- Principal Scientist* **September 2003 - December 2010**
- Involved in several government-funded research projects, mostly related to secure and survivable computer systems. For example, in the SPRINT project (“Secure Programming Using Artificial

Intelligence Techniques”) I designed and prototyped a tool to support secure programming with SPARK (SRI’s Procedural Agent Realization Kit). In “Policy Projector”, a Phase I OSD-funded effort, I was involved in the design of a tool that rapidly reveals potential problems with network policy changes prior to their implementation. In “Software Pedigree Analysis” (SPAN), a DARPA Phase I SBIR effort, I developed a prototype that maintains software pedigree to support future forensic investigations; and in “Active Smart Targets for Effective Response” (ASTER), a DARPA-funded Phase II SBIR, I developed a prototype to identify hackers by feeding them traceable information during exploratory probes.

**MicroPatent LLC**, East Haven, Connecticut USA

*Director of Software Development*

**January 2002 - December 2003**

Responsible for all software development projects, leading a team of 15-20 programmers. Designed and implemented an extensive patent-family database with over 50 million records, merging several different sources of data. Developed analytical tools for advanced patent searchers.

*Special Projects Manager*

**October 2000 - January 2002**

Led a team of five people to develop a large-scale system to deliver patent databases in XML format. The project included designing a database, writing a program to convert the data to XML, writing programs to validate the XML, and programs to automate and monitor the delivery process.

*Team Leader*

**February 1999 - September 2000**

Led a team that designed and implemented comprehensive patent and trademarks databases and web interfaces. In addition to developing web-based applications, I was involved in other projects, including the design and implementation of a Client/Server application to provide customers with direct access to the patent database (using OpenText’s “Bibliographic Retrieval Services (BRS)/Search”); design and implementation of an SQL-based database to save user queries, and a corresponding web interface that allows users to construct complicated searches by combining results from previous searches, and share searches with colleagues; and an information-theoretic approach to improve retrieval of records.

*Unix Programmer*

**November 1997 - February 1999**

Involved in almost all the development projects in the company, including programs to enable our web customers to download patent data in PDF format (the first web site in the industry to do that), and in Lotus Notes format.

**Motorola Israel - Wireless Access Systems Division**, Tel Aviv, Israel

*Software Engineer*

**May 1995 - July 1997**

As part of the Software Quality Assurance (SQA) team in the “Wireless Local Loop” (WiLL) project, I was involved in a wide range of activities, including extensive test and integration of wireless and land telephony systems, from the operating system of the base stations to the end-user wireless equipment; software engineering practices and procedures; writing a graphic user interface for the WiLL system; writing a program to automate the analysis of massive log files in order to detect anomalies; and integration and testing of an encryption device in the fixed wireless terminals.

**OTHER SKILLS**

Statistical Packages: R, BUGS, Matlab, JMP, SAS, Stata, SPSS.

Programming languages: Perl, Python, C, Java, JavaScript, Unix shell scripts, SQL, PHP, HTML/XML, Tcl/Tk.