

# DAVID O. HOVEL

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## Software Designer and Architect

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### QUALIFICATIONS

- Professional software designer and implementer for leading software and computer companies with extensive experience in cutting-edge technologies.
- 11 years as developer with Microsoft in Windows NT and Microsoft Research.
- Solid technical expertise in Internet technologies, mathematical programming, database development, software componentization.
- Published iPhone application author (ProbeView).
- Strong public speaker and university-level instructor; published writer.

### INDUSTRY KNOWLEDGE

- Languages: C# (4.0),/Mono, C++, F#, Visual Basic, COM/ATL, ASP.NET, SQL, ASP, Java, JavaScript, C, Objective C, Pascal, PROLOG, others.
- Operating Systems: Windows 7/Vista/XP, Microsoft.Net, Linux, Mac OsX, iPhone iOS, Windows 7 Phone.
- Development environments include Visual Studio, Expression Blend 4, Eclipse, XCode.
- Implementation technologies: WWW-related (HTML, XSLT, XML, CSS), COM/COM+/ATL, relational databases, graphical frameworks, multiprocessing, interrupt- and event-driven processing, compilers, expert systems, neural networks.
- Solid experience in computer-based video, audio, music and graphics.
- Experience with Lucene search engine and information retrieval.

### PART-TIME EMPLOYMENT

- iPhone application author (ProbeView, 2011).
- Maintain several business web-sites, including blogs and forums.
- Recent (Spring 2011) consulting work with Java using Lucene search engine on Eclipse platform.

### FULL-TIME EMPLOYMENT

#### **MICROSOFT CORPORATION, REDMOND, WA, 1990-2001**

##### Software Designer, Decision Theory Group, Microsoft Research, 1994-2001

- Design and implement tools and methodologies for probabilistic reasoning and intelligent interfaces, including Bayesian networks and rule-based systems.
- Provided training and decision analysis tools to developers throughout Microsoft.
- Worked with researchers on new techniques in probabilistic modeling and analysis.
- Designed/developed probabilistic event analysis and response interfaces.

##### Software Designer, Windows NT Network User Interface Group, 1990-1994

- Primary designer and implementer of network subsystem installation and configuration for Windows NT 3 and 3.5.

- Developed dynamic rule-based system guaranteeing correct network configurations; designed netcard hardware detection capability (precursor to Plug-and-Play).
- Participated in development of C++ class library used for all Windows NT network user interface components; helped develop common installation scripting language.
- Responsible for maintenance and porting of 500K lines of C++ source base.

#### **STARTUP PARTNERSHIP, SAN ANTONIO, TX, 1990**

- With lawyer associate, designed software for streamlining legal procedures.
- Developed expert system for guided legal data collection.
- Developed data-driven document generation system.

#### **DATAPPOINT CORPORATION, SAN ANTONIO, TX, 1977-1989**

- Started in systems programming (1977-1982), promoted to Staff Systems Programmer (1982-1987) and then to Principal Architect (1987-1989) for this minicomputer vendor and pioneer in local area networking (ARCNet).
- Designed and lead development teams for local-area network file servers, redirectors and applications, as well as major user interface projects.
- Organized, trained and managed the PC LAN software development group.
- Initiated and guided development of extensive automated test facilities for client-server software.
- Taught numerous in-house and customer training courses for major clients including Citibank, the Bank of Brussels, etc.

#### **CONSULTING AND PERSONAL PROJECTS**

##### **MetaJure Corporation, Seattle, WA, 2011**

- Developed proprietary document retrieval enhancement techniques in Java/Eclipse using Lucene search engine.

##### **ProbeView iPhone Application, Bellevue WA, 2011**

- Developed complete iPhone application for computer network testing.

#### **PUBLICATIONS**

“ASP.NET and Page Persistence,” *Dr. Dobb’s Journal, December, 2002.*

“Using Prolog in Windows NT Network Configuration,” *Proceedings of the Practical Applications in Prolog ‘95 Conference.*

“Lumière: Bayesian User Modeling for Inferring the Goals and Needs of Software Users”, with Eric Horvitz, et al., UAI '98 (Proceedings of the 1998 Conference on Uncertainty in Artificial Intelligence)

“Attention-Sensitive Alerting,” with Eric Horvitz, et al. UAI '99 (Proceedings of the 1999 Conference on Uncertainty in Artificial Intelligence)

## PATENTS

“Booting a System Using a Last-Known-Good Set of Configuration Data,” 1993.

“Intelligent User Assistance Facility,” 1996.

“Automatic Bottleneck Detection by Means of Workload Performance Measurement,” 2000.

“Decision-Theoretic Principles and Policies for Notification,” 2000.

“Contextual Models and Methods for Inferring Attention and Location,” 2000.

“Collaborative Filtering Utilizing a Belief Network,” 1996

## EDUCATION

B.S. degree in Physics and Math, University of Texas at El Paso.

## LANGUAGES

Advanced reading and conversational abilities in Spanish, French and Italian.