# Dave L. Cohen

## Contact

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## Education

Georgia Institute of Technology, Atlanta, Georgia
Bachelor of Science in Information and Computer Science
Graduated Magna Cum Laude 3.8/4.0 GPA
Co-Op Program

## Teaching

Tutor.com: Online instruction for students from high schools and colleges in HTML, CSS, Javascript, PHP, Apache and similar Web development topics. Also Algebra, Geometry, Probability/Statistics.

Durham Technical Community College: Teach "Database Driven web Sites" course as adjunct professor.

Instruction Set, Boston, MA: Developed courses including VBScript, ASP/ADO, Visual Studio, CGI/Perl, XML, MS IIS.

ElementK/SmartPlanet: Developed and taught online courses including HTML, Javascript, ASP, CGI/Perl, Apache, Object Oriented Technology, SQL Server, C++, Visual Basic.

Chapel Hill Homeschoolers: Taught several science classes to elementary level students at co-operative.

Homeschooled two sons through 8$^{th}$ grade.

Coached youth soccer, basketball, baseball, and football in Chatham County and Wake County.

## Work Experience

**Self-Employed Developer**
**428 Tanager Lane, Chapel Hill, NC 27517**

**Web Site Development**
One site I did extensive work on was Bamboo Data Systems, at http://www.bamboodatasystems.com. This site provides companies and educational institutions with a comprehensive medical training system complete with video search, quiz subsystem, lecture system, and more. I hand-coded the site using PHP, HTML, CSS, Javascript, jQuery, and mySQL. The majority of the PHP code is object oriented, hiding

complex SQL queries. The site boasts multi-level user access, by individual, site, or institution. Tabular data is elegantly presented with sortable data, driven by AJAX triggers and JSON data. A comprehensive administrative interface allows video management, quiz building, and user/site/institution management among its many features. A mobile front end utilizes AJAX to access server-side PHP classes, providing a large subset of functionality. A set of cron jobs automates features including emailed reports and backups.

I built and enhanced several eCommerce sites, using osCommerce and Zencart. These sites have included integration with book printers to automate order fulfillment, Fedex to streamline product shipment, Google product feeds for SEO and product listings, and even Amazon Checkout. Some of the sites utilized virtual private servers (VPS) running Linux/Apache. Additional enhancements include bar code generation and custom rolling database backups. Sites have utilized several different payment gateways, including Paypal and Authorize.net. While these eCommerce platforms have been slow to embrace responsive interfaces, I customized one osCommerce site to be fully mobile friendly.

I've built a number of other sites, including: an author's book series site, an artist's site, a horse farm site, a landscape architect's site, a house architect's site and more. These have all centered on hand-coded HTML, CSS, PHP, jQuery, AJAX, and mySQL. Features at these sites include a customized image gallery, a Javascript-based animation system, responsive interfaces, 3$^{rd}$ party site integration, and comprehensive administrative facilities.

Prior to focusing on PHP/mySQL development, I built a course registration system using ASP and the MS Visual Studio application framework. This used an early version of ASP that required constant fixes and workarounds. The site also integrated the Crystal Reports package for dynamic data sorting and searching.

A detailed list of sites I've worked on and their features can be viewed at my personal web site, Alleycat Software, http://www.alleycatsw.com.

**Instruction and Course Development**
I am currently doing part time work tutoring  students from high schools and colleges in HTML, CSS, Javascript, PHP, Apache and similar technical fields. This is through Tutor.com, at http://www.tutor.com.

I developed the "Database Driven Web Sites" course that I teach at Durham Technical Community College.

I also developed courses and projects for Instruction Set, ElementK, and SmartPlanet. These include: Visual Interdev, HTML/DHTML, VBScript, JavaScript, ASP, ADO, Apache, CGI/Perl, XML, Visual Studio, ASP.NET/VisualBasic.NET/XML, MS IIS, Object Oriented Technology, ASP, Java, C/C++, CGI/Perl, SQL Server, Apache, Visual Basic, and  C++.

**Writing**
I've written for a variety of technical and business publications, thus exhibiting excellent written and communications skills. These publications include Microsoft Systems Journal, Computer Language, LAN Technology, and a biweekly computing column for Triangle Business Journal in Raleigh NC.

I have also authored a fictional novel available at Amazon.com.

**Software**
I developed and marketed Capital Gainz, a Windows-based portfolio management system. Capital Gainz received several awards, including ones from AAII Computerized Investing and PC Computing magazine.
https://www.alleycatsw.com/capgnz.php

## Global Logistics Venture: Senior Software Engineer
## 113 Edinburgh S, Ste 100, Cary, NC 27511

I was part of the Global Architecture team that defined EDI products. I designed and developed TCP/IP client/server code to connect SunOS applications to VAX VMS, as well as a C++ library for TCP, UDP, and DECnet.

## Data General: Senior Software Engineer
## 62 T.W. Alexander Drive, RTP, NC 27709

I led the effort to rearchitect DG's ANSI-standard SQL database manager from a proprietary operating system to a standard client/server configuration. This included constructing complete design and functional specifications for the project, based on emerging industry standards for remote database access. I used interactive and precompiled SQL access for C applications on DOS and UNIX client front-ends, which communicated with the high-performance database server.

I also designed and led the development effort for DG/SQL (relational DMBS) and INFOS (hierarchical DBMS) Connection Server products, which provided high performance and large user count support by implementing a single shared request queue architecture running over X.25, ISO TP4/IP, shared memory, or a proprietary high-speed bus.

I helped build the user interface for Data General's relational database manager, DG/SQL. This involved embedded and call-level support for several computer languages. I authored the appendix to the ANSI standard for C language SQL API.

# Publications

### Magazines/Journals

- Cohen, Dave. "Public Domain Software Lets NetWare and TCP/IP Coexist". LAN Technology, February 1991.

- Cohen, Dave. "LAN Workplace for DOS 4.0 utilizes ODI Drivers." LAN Times, June 1991.

- Cohen, Dave. "Creating Clarion Multiple Selection Tables." Tech Specialist, September 1991.

- Cohen, Dave. Triangle Business Journal, Technology column, 1992-1996.

- Cohen, Dave. "Artificial Deadlocks." SunWorld, January 1992.

- Cohen, Dave. "Realizing the Potential of SQL." Computer Language, March 1992.

- Cohen, Dave. "Embedded SQL: A Look Behind the Scenes." Database Programming & Design,

June 1992.

- Cohen, Dave. "AFS: NFS on Steroids." LAN Technology, March 1993.

- Cohen, Dave. "Combining Online Documentation and Help in CDD 3.x." The Clarion Tech Journal, November/December 1994.

- Cohen, Dave. "Mixing CDD and C for Faster DOS/ASCII File Handling." The Clarion Tech Journal, March/April 1995.

- Cohen, Dave. "CDD 3.0: Problems, Fixes, and Workarounds." The Clarion Tech Journal, May/June 1995.

- Cohen, Dave. "Construct Your E-commerce Business Tier the Easy Way with XML, ASP, and Scripting." Microsoft Systems Journal, February 2000.

## Novels

- Cohen, Dave. "Executable File." Self-Published, August 2018.

## Product Reviews: Capital Gainz Investment Software

- Gralla, Preston. PC Computing Guide to Shareware. Ziff-Davis Press, 1992.

- #145 Shareware Vendor Sales, 1992.

- Nominated for "Best Business and Finance Software" award, Summer Shareware Seminar, Indianapolis, IN, 1993.

- "1001 Downloads: Internet Tools." The Best of the Internet Awards: Applications, Stocks/Bonds/Mutual Funds. PC Computing, July 1996.

- AAII. The Individual Investor's Guide to Computerized Investing, 1996.

- Sindell, Kathleen. Investing Online for Dummies, 1998.

# Technical Skills

- HTML
- CSS
- XML/XSL
- PHP
- MySQL
- Javascript
- jQuery
- AJAX

- CGI/Perl
- osCommerce
- ZenCart
- eCommerce
- Payment gateways
- SEO
- LEX/YACC
- Apache
- Microsoft Windows
- UNIX
- Linux
- X Windows
- cPanel
- WHM

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# References

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