

# ATTILA NARIN

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## COMPLETE RESUME

Current as of April 2012

Single page resume summary available at  
[http://www.narin.com/attila/resume\\_summary.pdf](http://www.narin.com/attila/resume_summary.pdf)

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## OBJECTIVE

Visionary and innovative technologist seeking challenging position in the high-tech industry to make the most of my technical background, customer focus, creativity, passion, industry experience, and leadership skills

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## CAREER HIGHLIGHTS

- 16 years of industry experience, strong innovative and technical background
- 6+ years at Microsoft as developer/lead/architect, during this time part of *Bill Gate's Executive Strategy Team*
- 7+ years at Amazon.com with focus on cloud computing, innovation, technology, business, and leadership
- 5+ years with *Amazon Web Services (AWS)* with deep expertise in Amazon's cloud computing offerings
- Sr. Manager of *AWS Solutions Architecture* in EMEA, leading and growing an elite team
- Public speaker at various industry and AWS events across Europe; spokesperson for press and media
- Key contributor to the innovative and game-changing *Amazon Elastic Compute Cloud (EC2)*
- *Search Engine Optimization (SEO)* for one of the largest web sites on the Internet (Amazon.com)

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## WORK EXPERIENCE

October 2004 – present

**Amazon.com**

**SR. MANAGER, SOLUTIONS ARCHITECTURE  
AMAZON WEB SERVICES (AWS), EMEA  
AMAZON EU SARL**

Sep. 2010 – present  
Luxembourg

Amazon Web Services (AWS) has provided companies of all sizes with an infrastructure web services platform in the cloud. With AWS you can requisition compute power, storage, and other services, gaining access to a suite of elastic IT infrastructure services as your business demands them.

For more details, please see <http://aws.amazon.com/>.

In this role, I'm heading up the AWS Solutions Architecture team for Europe, Middle East, and Africa (EMEA). The team's function is largely customer facing with a strong technical angle, deep experience in AWS, software and systems architecture, IT infrastructure, security, and other relevant technical concepts. The team works closely with customers and prospects to make them successful on the AWS platform, building scalable, fault tolerant, cost effective, and secure systems. We tie back to teams across AWS on strategic and tactical issues.

Specifically, I'm responsible for growing and leading an elite team of Solutions Architects, coaching and managing the team, working with the top strategic and large customers across EMEA, and showing technical thought leadership in the space. At the same time, I'm continuing to be a role model Solutions Architect, retaining, extending, and using the strong technical skills and hands-on aspects of the role.

Key Responsibilities:

- ◆ Lead an elite and senior team of Solutions Architects, track record of hiring top talent
- ◆ Manage team members locally and in remote locations
- ◆ Work closely with top customers and prospects in EMEA, ensure their success with AWS
- ◆ Show thought leadership in the industry through whitepapers and public speaking
- ◆ Drive and influence AWS revenue in EMEA, strategize about business priorities
- ◆ Member of the AWS WW sales and business development leadership team
- ◆ AWS Spokesperson for press and media engagements
- ◆ Anticipate cloud computing and industry trends, align team accordingly

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## WORK EXPERIENCE (CONTINUED)

Oct. 2004 – present

**Amazon.com** (continued)

**SOLUTIONS ARCHITECT / SR. SOLUTIONS ARCHITECT  
AMAZON WEB SERVICES (AWS), EMEA  
AMAZON EU SARL**

June 2009 – Aug. 2010  
Luxembourg

As a Solutions Architect I was responsible to make large prospects and customers successful on the AWS platform. This is largely a customer facing role with a strong technical angle, including both hands-on and higher-level architecture and thought leadership components. This role required very deep knowledge of all aspects of Amazon Web Services and the ability to relay this to customers and prospects.

Key Responsibilities:

- ◆ Establish AWS technical credibility with customers and external parties
- ◆ Help customers build scalable, resilient, and high-performance applications and services on AWS
- ◆ Develop/capture/document architectural best practices for building systems on AWS
- ◆ Drive and influence AWS revenue in EMEA

Key Technologies and Skills:

- ◆ Expert-level knowledge of Amazon EC2, Amazon S3, Amazon SimpleDB, Amazon RDS, Amazon Elastic Load Balancing, Amazon SQS, and other services of the AWS family
- ◆ High-Availability, Fault Tolerance, Scalability, Database Concepts, System and Software Architecture, Security, IT Infrastructure, Virtualization, and Internet Technologies
- ◆ Excellent customer facing skills and communication skills

**TECHNICAL PRODUCT AND PROGRAM MANAGER  
ELASTIC COMPUTE CLOUD (EC2), AMAZON WEB SERVICES (AWS)  
AMAZON DEVELOPMENT CENTRE SA**

Aug. 2006 – May 2009  
Cape Town, South Africa

Amazon Elastic Compute Cloud (EC2) is Amazon's innovative web service that is pioneering cloud computing and utility computing by providing resizable compute capacity in the cloud. For more details, please see <http://aws.amazon.com/ec2>.

Working mostly out of the Amazon Development Centre South Africa located in Cape Town, my responsibility was to lead and coordinate large strategic initiatives of Amazon EC2 from conception to final completion and operation. This includes driving efforts across multiple teams locally and remotely including development and technical teams, Infrastructure, Billing, Technical Writing, Public Relations, Business Development, Marketing, Finance, Legal, and external partners, vendors, and key customers.

In this capacity I was a key member of the EC2 team and drove most of the significant features that were released in this time period.

Key responsibilities:

- ◆ Managing large and significant cross-functional programs and projects
- ◆ Defining and reviewing systems-level technical designs and user models
- ◆ Leading and organizing key architecture discussions and decisions
- ◆ Balancing near term business needs with long term implications
- ◆ Release management of all significant public EC2 launches
- ◆ Participating in global project planning and roadmap definition
- ◆ Working with technical and non-technical teams across Amazon
- ◆ Interacting with external partners, customers, and vendors

## WORK EXPERIENCE (CONTINUED)

Oct. 2004 – present

**Amazon.com** (*continued*)

### MANAGER

**SEARCH ENGINE OPTIMIZATION  
AMAZON.COM, INC.**

June 2005 – July 2006  
Seattle, Washington, USA

The Search Engine Optimization (SEO) team is responsible for driving traffic from search engines like Google, Yahoo!, and MSN to Amazon web sites. This channel accounts for millions of visitors to Amazon's web sites and millions of dollars in revenue.

As the manager of this highly visible area, it was my responsibility to build and lead an elite team to create scalable algorithmic approaches to improve search engine rankings for organic search results.

Key responsibilities:

- ◆ Leading a world class team from a business, technical, and project management perspective
- ◆ Identifying and prioritizing the key opportunities using rigorous quantitative approaches
- ◆ Developing and defending business strategy choices
- ◆ Working with other technical and non-technical teams across Amazon
- ◆ Prioritizing and managing multiple concurrent cross-functional projects
- ◆ Aggressively recruiting the best talent

### TECHNICAL PRODUCT AND PROGRAM MANAGER

**PERSONALIZATION  
AMAZON.COM, INC.**

Oct. 2004 – June 2005  
Seattle, Washington, USA

The personalization team at Amazon.com is building features based on customer behavior data. This includes features like "Customers who bought this also bought that"; Recommendations, My Store, etc.

My role in the personalization team was to drive forward innovation and to come up with new programs and ideas to maximize profits and to increase free cash flow. My contributions included:

- Innovation in the area of product search, delivering a new framework that self-optimizes search results based on previous customer search behavior.
- Creating the roadmap for personalization features in nascent stores, getting sign-off from VPs, experimenting and showing proof of concept, delivery of features.
- New ideas and features for the Amazon.com Platinum Visa Card, which proved to be a very interesting business challenge including several trade-offs and goals to be balanced.

Key tasks and responsibilities:

- ◆ Creating roadmaps, business cases, marketing requirements, and estimating ROI of new ideas
- ◆ Balancing long term strategic and short term needs, providing technical guidance
- ◆ Working with Amazon databases, data warehouse, interacting with data mining teams
- ◆ Executing and managing projects hands-on using agile development methodologies (Scrum)
- ◆ Technologies used: Unix/Linux, Perl, shell scripting, Toad, SQL, Oracle, MySQL

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## WORK EXPERIENCE (CONTINUED)

July 1998 – Oct. 2004

**Microsoft Corporation**

Redmond, Washington, USA

**SOFTWARE DESIGN ENGINEER LEAD / ARCHITECT  
REAL TIME COMMUNICATION AND COLLABORATION**

July 2003 – Oct. 2004

Reporting to the Corporate VP for Real Time Communication and Collaboration, my role was to build strategic prototypes that show off new ideas and technologies in the field of real-time communication and collaboration. The learning and knowledge of successful prototypes was then transferred into the product groups where I performed the following tasks:

- Technical leadership and direction for system architecture, including hands-on development
- Guidance prioritizing features given short/long term trade-offs
- Strategy around standards vs. proprietary intellectual property

The main prototype that was turned into a product at this time was the next generation communication client for Windows containing a rich set of telephony features, which were shown to be successful largely through my prototyping work. The resulting product was the Microsoft Office Communicator 2005.

Key Technologies:

- ◆ ECMA-CSTA, E.164, PBX interfaces (Intecom/EAD OAI, Genesys, etc)
- ◆ SIP, Windows Messenger APIs, RTC Server APIs, other related APIs

Overall, my role was very similar to what it was in the Executive Strategy team (please see next paragraph below), except for a more specific focus on communication type prototypes.

**SOFTWARE DESIGN ENGINEER LEAD  
EXECUTIVE STRATEGY**

Sep. 2002 - July 2003

Part of Bill Gate's Executive Strategy team (reporting directly to the Technical Assistant of Bill Gates), my role was to build strategic and innovative prototypes that show off new ideas and technologies. Such prototypes were used to influence key decision makers to incorporate new ideas into products.

One of the main prototypes I worked on was about Enhanced Telephony, specifically, exploring how the telephone and the PC can work together to enable rich Knowledge Worker and Information Worker scenarios. I was the main software developer and architect of the project, choosing appropriate technologies, setting the technical direction, building appropriate partnerships, interacting with Microsoft Research, and delivering the prototype for use inside of Microsoft. Once deployed by users, we collected behavioral data, continually improved the prototype and added new features, released new versions, and provided support to existing users.

The Enhanced Telephony prototype was a big success. Its findings are more formally summarized in the publication (see below) of the 2004 ACM Conference on Human Factors in Computing Systems (CHI 2004). Further, two patents in this area are pending.

Key Technologies and Skills:

- ◆ .NET Framework, .NET Remoting, WinForms, managed code, Windows Services
- ◆ API design, OOD, UI development, rapid development, debugging, operations and support
- ◆ Client/Server design, multi-threaded programming, system programming
- ◆ .NET, C#, WinForms, managed code, CLR, COM, ATL, XML, Outlook, MAPI, DirectX

## WORK EXPERIENCE (CONTINUED)

July 1998 – Oct. 2004

**Microsoft Corporation** (continued)

Redmond, Washington, USA

### **SOFTWARE DESIGN ENGINEER LEAD WINDOWS RIGHTS MANAGEMENT**

June 2001 - Sep. 2002

Windows Rights Management shipped with Office 2003 and provides support for authoring and viewing of protected documents and content.

In this team, I was the lead software design engineer for the enterprise Rights Management Server. I was a key contributor in defining the new Rights Management (RM) architecture and the main driver for building a prototype showing the new RM concepts and ideas. This prototype was demonstrated to Bill Gates, which positioned our team and RM as a high-visibility contributor to Office 2003. I helped the team solve the key enterprise scenarios, and evangelized new technologies like C# and .NET.

My role included managing a team of five developers and working as a technical lead, including hands on programming of several areas of the RM server, including overall architecture, deployment/management, directory services integration, authentication and authorization, extranet trust, performance, and various other enterprise features.

This project brought about several innovations in the area of Digital Rights Management (DRM), and I am one of the main contributors with several patents issued and patents pending.

#### Key Technologies and Skills:

- ◆ C#, ASP.NET, .NET Framework, .NET Services and Web Applications, SOAP, OOD
- ◆ LDAP, Active Directory, C++, COM, JavaScript, ATL, XML, HTTP, ASP.NET

### **SOFTWARE DESIGN ENGINEER MICROSOFT READER**

Aug. 1999 – May 2001

The Microsoft Reader is Microsoft's eBook reading software for the PC and devices like the Pocket PC. I worked in the area of connectivity and Digital Rights Management (DRM). For the Reader application, I designed and implemented required client and server components to allow for seamless integration of online tasks such as activation for DRM and the purchase experience for eBooks.

I helped ship the first two versions of the Reader for both the PC and the Pocket PC and innovated in the area of connectivity and DRM with several patents issued and pending.

#### Key Technologies and Skills:

- ◆ C++, ASP, MS Passport, HTTP, Windows CE, RemoteAPI, COM, ATL, OOD
- ◆ ActiveX, JScript, Netscape Plug-Ins, XML, WinInet/URLMon, HTML, localization

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## WORK EXPERIENCE (CONTINUED)

July 1998 – Oct. 2004

**Microsoft Corporation** *(continued)*

Redmond, Washington, USA

### SOFTWARE DESIGN ENGINEER MSN

July 1998 – Aug. 1999

Working on Microsoft's [www.msn.com](http://www.msn.com) portal site, I was exposed to Internet technologies for both client and server. Client side, I developed infrastructure for installing and upgrading client bits and exposing persistent services to web pages on Internet Explorer and Netscape Navigator platforms. Server side, I worked on the [msn.com](http://www.msn.com) server architecture, experimenting with possible platforms, designing and implementing server side objects and components, and improving performance and scalability.

I successfully helped ship two versions of the MSN.COM web site, and innovated in this field with several patents issued and pending.

#### Key Technologies and Skills:

- ◆ C++, ISAPI, ASP, HTTP, COM, ATL, IIS, multithreading
- ◆ ActiveX, Java Applets, JScript, Netscape Plug-Ins, HTML, XML

Aug. 1996 – July 1998

**Seagull Software Caribbean N. V.**

Curaçao, Netherlands Antilles

### SOFTWARE DEVELOPER

The project I worked on was a Windows application that interacts with printer queues of the IBM AS/400. Instead of printing spooled files of many pages, the tool downloads spooled files and analyzes them on the PC. In other words, a flat text file is turned into an interactive experience with graphics, charts, summaries, overviews, and breakups that allow drilling into the data of the file.

#### Tasks performed:

- ◆ Developed bulk of project, coordinated dev team, maintained specifications and schedule
- ◆ Researched and prototyped, turned rough ideas into working solutions
- ◆ Managed source control, build environment, and install procedures
- ◆ Participated in a special project to restructure and organize the company's source code

#### Key Technologies and Skills:

- ◆ C++, MFC, HTML, OLE, OOD, Windows Programming, AS/400, graphics libraries

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## WORK EXPERIENCE (CONTINUED)

Spring 1996 **Microsoft Corporation / Rho Tech** Gainesville, Florida, USA

### STUDENT REPRESENTATIVE FOR THE MICROSOFT DEVELOPER DIVISION

Tasks performed:

- ◆ Demonstrated developer software, analyzed potential for Microsoft products
- ◆ Created marketing and action plan, worked with program manager at Microsoft
- ◆ Helped with upgrades to Microsoft products, provided technical support
- ◆ Organized events, interacted with professors, students, and staff

May 1995 – Aug. 1995 **Microsoft Corporation** Redmond, Washington, USA

### PROGRAM MANAGER (INTERN) MICROSOFT EXCHANGE

Tasks performed:

- ◆ Worked on Microsoft Exchange client and form designer
- ◆ Developed HTML-based publishing concepts for forms
- ◆ Prepared localization instructions for forms, interacted with localization team
- ◆ Automated the build process for forms, interacted with build team
- ◆ Created sample applications, provided technical support for form designer

Feb. 1995 – May 1995 **University of Florida** Gainesville, Florida, USA

### WEB DESIGNER AND INTERNET CONSULTANT

Tasks performed:

- ◆ Designed and created the web page for the Internal Management Auditing Office
- ◆ Provided technical support and training, wrote manuals and maintenance guide

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## EDUCATION

July 1993 – May 1996 **University of Florida** Gainesville, Florida, USA

**BACHELOR OF SCIENCE** (major GPA 3.9/4.0, overall GPA 3.6 / 4.0)  
MAJOR IN COMPUTER SCIENCE, MINOR IN MATHEMATICS

Course Highlights:

- |                        |                           |                     |
|------------------------|---------------------------|---------------------|
| ◆ Software Engineering | ◆ Artificial Intelligence | ◆ Computer Ethics   |
| ◆ Operating Systems    | ◆ Numerical Analysis      | ◆ System Simulation |
| ◆ Networking           | ◆ Computer Graphics       | ◆ Digital Design    |

Awards / Activities

- |                                 |                                                     |
|---------------------------------|-----------------------------------------------------|
| ◆ Dean's List, High Honors      | ◆ President of Volunteers for Int'l Student Affairs |
| ◆ International Student Council | ◆ President of Turkish Student Association          |
|                                 | ◆ Task Force on the Future of Student Government    |

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## LANGUAGE SKILLS

Fluent in **English** and **German**; conversational **Turkish**; some **Portuguese**

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## PATENTS ISSUED

- Issuing a digital rights management (DRM) license for content based on cross-forest directory information  
US Patent Number 7,827,156 Issued: Nov 2, 2010
- System and method for enhanced telephony integration and interaction  
US Patent Number 7,697,506 Issued: Apr 13, 2010
- Publishing digital content within a defined universe such as an organization in accordance with a DRM system  
US Patent Number 7,577,999 Issued: Aug 18, 2009
- Domain-based trust models for rights management of content  
US Patent Number 7,523,310 Issued: Apr 21, 2009
- Digital license with referral information  
US Patent Number 7,366,915 Issued: Apr 29, 2008
- Obtaining a signed rights label (SRL) for digital content and obtaining a digital license corresponding to the content based on the SRL in a digital rights management system  
US Patent Number 7,353,402 Issued: Apr 1, 2008
- Tying a digital license to a user and tying the user to multiple computing devices in a DRM system  
US Patent Number 7,318,236 Issued: Jan 8, 2008
- Method for authenticating and securing integrated bookstore entries  
US Patent Number 7,225,159 Issued: May 29, 2007
- Server controlled branding of client software deployed over computer networks  
US Patent Number 7,188,342 Issued: Mar 6, 2007
- Using a first device to engage in a digital rights management transaction on behalf of a second device  
US Patent Number 7,185,363 Issued: Feb 27, 2007
- Systems and methods for providing secure server key operations  
US Patent Number 7,174,021 Issued: Feb 6, 2007
- System and method for integrating secure and non-secure software objects  
US Patent Number 7,039,801 Issued: May 2, 2006
- Tracking usage behavior in computer systems  
US Patent Number 7,039,699 Issued: May 2, 2006
- System and method for activating a rendering device in a multi-level rights-management architecture  
US Patent Number 7,017,189 Issued: Mar 21, 2006
- Reviewing cached user-group information in connection with issuing a DRM license for content  
US Patent Number 6,990,502 Issued: Jan 24, 2006
- System and method for client interaction in a multi-level rights-management architecture  
US Patent Number 6,981,262 Issued: Dec 27, 2005
- Supplemental request header for applications or devices using web browsers  
US Patent Number 6,966,034; 7,159,182; 7,213,079 Issued: Nov 15, 2005; Jan 2, 2007; May 1, 2007
- Information server systems and methods of rendering information pages  
US Patent Number 6,751,778 Issued: Jun 15, 2004
- Methods for managing the distribution of client bits to client computers  
US Patent Number 6,718,549 Issued: Apr 6, 2004
- Method for managing client services across browser pages  
US Patent Number 6,691,176 Issued: Feb 10, 2004

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## PATENTS PENDING

- Providing configurable pricing for execution of software images  
Date: Apr 2008
- System and method for associating keywords with a web page  
Date: Dec 23, 2005
- Systems and methods for issuing usage licenses for digital content and services  
Date: Jan 1, 2004 Application Number: US 20040003269
- Systems and methods for issuing usage licenses for digital content and services  
Date: Dec 29, 2003 Application Numbers: NO 20030002752, EP 1378811, US 2004003269, JP 2004038974
- DRM system for protecting digital content  
Date: Dec 29, 2003 Application Numbers: NO 20030002751, EP 1376309, US 2004003270
- Secure server plug-in architecture for digital rights management systems  
Date: Dec 29, 2003 Application Numbers: NO 20030002749, EP 1376980, US 2004003139, JP 2004062890
- Enhanced telephony computer user interface allowing user interaction and control of a telephone using a PC  
Date: May 20, 2003 Application Numbers: US 20040235520, US 20090214014
- Architecture for an electronic shopping service integratable with a software application  
Date: Apr 18, 2002 Application Numbers: US 20020046045; US 20050033663, US 20050033663

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## PUBLICATIONS

- Using AWS for Disaster Recovery**, Whitepaper, October 2011  
Glen Robinson, Ianni Vamvadelis, **Attila Narin**  
[http://media.amazonwebservices.com/AWS\\_Disaster\\_Recovery.pdf](http://media.amazonwebservices.com/AWS_Disaster_Recovery.pdf)
- Building Fault-Tolerant Applications on AWS**, Whitepaper, June 2010  
Jeff Barr, **Attila Narin**  
[http://media.amazonwebservices.com/AWS\\_Building\\_Fault\\_Tolerant\\_Applications.pdf](http://media.amazonwebservices.com/AWS_Building_Fault_Tolerant_Applications.pdf)
- Exploring PC-Telephone Convergence with the Enhanced Telephony Prototype**  
JJ Cadiz, **Attila Narin**, Gavin Jancke, Anoop Gupta, and Michael Boyle.  
Proceedings of the 2004 ACM Conference on Human Factors in Computing Systems (CHI 2004).  
[http://www.narin.com/attila/CHI2004\\_ET.pdf](http://www.narin.com/attila/CHI2004_ET.pdf)
- Narin, Attila. "The Myths of Artificial Intelligence"**, Dec 1993  
<http://narin.com/attila/ai.html>  
Paper about the ethics of artificial intelligence, often quoted in academic course work.
- Narin, Attila et al. Young Researcher, "Chaotische Staubfiguren"**, Germany, Feb. 1995, p. 20, Vol 37.  
A study of Chaotic Dust Figures on Electro-Staticly Charged Foils including Computer Simulation

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## PERSONAL PROJECTS

- Software Remote Control for Music Collection (2003 - present)  
PC and PocketPC based remote control for Turtle Beach AudioTron network music player  
Technologies used: .NET Framework, .NET Compact Framework, HTTP, WinForms UI, multi-threading
- Fractal Generator for Mandelbrot/Julia Sets (1999)  
Fractal Generator written as Java Applet: <http://www.narin.com/attila/fractals/>  
Technologies used: Java development framework, Java Applet, Java Script
- Telephony Communication Center for Windows 95 (1995, Senior Project)  
Interacting Telephone Components (Phone, Answering Service, Caller ID, Phone Book, etc.)  
Technologies used: Windows 95, COM/OLE, Microsoft C++ and VB
- Multimedia Presentation Tool for MS-Windows (1994, Group Project)  
A Time-Line Based Tool Allowing Easy Access, Editing, and Playing of Multimedia Presentations  
Technologies used: Windows 3.1, Microsoft C++, Microsoft multimedia libraries
- L-System Generator for MS-Windows (1993/94)  
Compiler for L-Systems Generating Fractals and Plant-Like Structures with 3D Rendering  
Technologies used: Windows 3.1, YACC & LEX, Borland C++, MS Windows graphics programming
- Fractal Generator / Multrix (Spring 1993)  
Renderer for Mandelbrot/Julia Sets, Simplified L-Systems, etc. with Advanced Color Editing Tool  
Technologies used: MS-DOS 3.x, 5.x, Borland C++, VGA, graphics programming
- Quick Data Base (Fall 1992)  
Database Application for Slow PCs, Used Interrupt Handler and Text Based Windows Interface  
Technologies used: MS-DOS 3.x, 5.x, Borland Turbo Pascal, VGA, graphics/windows programming
- Bio Rhythms (Spring 1992)  
Application to Evaluate Bio Rhythms, Wrote Interrupt Handler and Text Based Windows Interface  
Technologies used: MS-DOS 3.x, 5.x, Borland Turbo Pascal, VGA, graphics/windows programming
- 3D Animator (Fall 1991)  
3D Animation Tool with Shading Capabilities, GUI and Mouse Support  
Technologies used: MS-DOS 3.x, Borland Turbo Pascal, VGA, graphics/windows programming
- Speculatus (Fall 1991)  
Stock Market Evaluation Program with GUI and Mouse Support, Implemented Indicators etc.  
Technologies used: MS-DOS 3.x, Borland Turbo Pascal, VGA, graphics programming
- Letterhead & Form Printing Application (1990)  
Program to Print Customized Letterheads and Forms, Used Printer Specific Escape Sequences  
Technologies used: MS-DOS 3.x and Microsoft GW-BASIC
- Expense Report Application (1989)  
Application to Manage Expense Reports; Technologies used: MS-DOS 3.x and Microsoft GW-BASIC

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## HOBBIES

- ◆ Computers and Technology      ◆ Travel      ◆ Music      ◆ Photography