

Eldan Goldenberg

Objective

My goal is to contribute to our understanding of how a human being functions, by building and testing models of biological systems. I believe that the only way to really understand something even as complex as the nervous system of insect is to model it, and I want to build on my previous experience with computational models while working towards a Doctorate.

Current Activities

I have just completed an MSc in Evolutionary & Adaptive Systems at the University of Sussex School of Cognitive & Computing Sciences. Until May 1st I worked as an IT trainer, and from then until August 29th I was an intern at HP Labs, Bristol, where I conducted the research for my MSc dissertation.

Artificial Languages

C: For my recent MSc program I regularly wrote extensive programs in C to demonstrate and test ideas, including the complex GA system which was the basis of my dissertation.

MATLAB: I have used MATLAB to design neural network simulators and for data analysis.

POP-11: I learned POP-11 on an undergraduate course (1997-98), and have produced many small utilities and one large simulation with it.

XHTML: I have been designing and producing websites, mostly by hand-coding, since 1996. I have also been teaching HTML since 2000, and since Autumn 2001 all work I have produced and all courses I have taught have used XHTML 1.0.

XML: In 2001 & 2002 I taught an introductory XML course, covering the use of XML for data storage and XSL for presentation.

JavaScript: I am still in the process of learning JavaScript, but I am confident enough to adapt publicly available code for my requirements.

Education

2000 - 2002 COGS, University of Sussex Brighton, UK
Msc Evolutionary & Adaptive Systems

- On September 2nd I completed this MSc programme, which involved the study of computer programming, biology and philosophy as approaches to understanding the nature of life, and applying this knowledge to engineering problems.

1996 - 1999 COGS, University of Sussex Brighton, UK
BA(hons) Psychology

- I achieved a 2:1 on my BA, and a First for the minor ('School Course') in biologically-inspired artificial intelligence, which involved substantial amounts of programming and a basic grounding in neuroscience

Patents & Publications

Both publications are available from my website: <http://eldan.co.uk/publications/>

Technical Reports

- Goldenberg, E, (forthcoming). [Why curiosity didn't kill the primate.](#) Cognitive Science Research Paper 547, School of Cognitive & Computing Sciences, University of Sussex.

An exploration of what we can learn about human societies from simulations and ethological studies of social conservatism in other species, particularly primates. Due for publication in September 2002.

- Goldenberg, E, (forthcoming). [Automatic layout of variable-content print data.](#)

HP Labs Technical Report, HP Labs, Bristol

My MSc dissertation: a proof-of-concept demonstration of the usefulness of Genetic Algorithms for the automatic design of print documents. Due for publication in September or October 2002.

- Paul Layzell, Eldan Goldenberg & David T. Cliff, HP Labs: [Page Composition](#)
UK Patent application

The technique I developed for automatically generating print document layouts with a GA has been patented by HP, and it is hoped that it will form part of the bundled software for digital presses in a few years' time.

Examinations & Qualifications

2002 ETS London, UK

Graduate Record Examinations

- Analytical: 800 (top score)
- Quantitative: 770 (94th percentile)
- Verbal: 750 (top percentile)

1998 ETS London, UK

Graduate Record Examinations

- Analytical: 800 (top score)
- Quantitative: 800 (top score)
- Verbal: 730 (top percentile)

1984 - 1996 Haberdashers' Aske's School Elstree, Hertfordshire, UK

A Levels

- 'A' grades in French & German and 'B' in English Literature, in 1996

AS Level

- 'B' grade in Philosophy, in 1995

GCSEs

- 4 'A*' grades, 3 'A's and 2 'B's, all in 1994

Employment

May–Aug 2002 Hewlett-Packard Laboratories Bristol, UK
Intern

- For the final assessment of my MSc I prepared a dissertation, the research for which I conducted at HP Labs. I demonstrated the usefulness of Evolutionary Algorithms to an ongoing HP project investigating ways to automatically generate document layouts, and in addition to satisfying my course requirements my work will be published as an HP Technical Report, and is the subject of a UK patent application as described above.

2000 - 2002 Brighton IT Training Brighton, UK

Training Associate

- I designed and delivered a beginners' XHTML course, an advanced web design course and beginning to intermediate Dreamweaver courses, as well as providing personal tuition on these and related topics to those clients who preferred that route. BITT gave me considerable freedom in the choice of topics covered, design of handouts and exercises, and the format of the courses. The work was often challenging, but there are few things more rewarding than the look of recognition on a student's face when a concept that seemed incomprehensible to them suddenly becomes clear.

2001 - 2002 Silicon Beach Training Brighton, UK

IT Trainer

- I had a similar level of responsibility with an XML course at Silicon Beach Training, though this course ran less often, and BITT were my main employer at this time.

1996 - 2002 self-employed London & Brighton

Web site developer

- Until recently I designed, built and maintained web sites for a variety of customers on a freelance basis. Though the learning process has often not been pleasant, I have gained a great deal of useful experience about planning projects, working to over-optimistic deadlines and supporting customers who often know nothing about the process of creating a site.
- My portfolio is available at <http://eldan.co.uk/portfolio/> , though it is out of date and I no longer maintain any of the sites listed, having chosen to concentrate on teaching and research.

1999 - 2000

Serverware Group plc.

London, UK

Trainee Programmer / QA Tester

- Until development work was relocated to Colorado, I was involved in the development of ECM, which is now known as Microsoft Operations Manager. My responsibilities included testing new builds of the software, writing the documentation, providing on-site training to clients, and development work on an intranet console using ASP to display information to network administrators when not at their own desks.

1998

Integral Designs

Peacehaven, Sussex, UK

Software Trainer

- I provided basic on-site IT training to a number of local companies who had recently installed Windows based networks. I taught courses ranging from a complete beginners' introduction to Windows through to advanced Excel and Word.

1997

University of Sussex

Brighton, Sussex, UK

Supplemental Instruction assistant

In my second year at University I ran optional drop-in sessions for first-year undergraduates who were having difficulty with an introductory programming course. The course was extremely ambitious considering that the students had enrolled on a Psychology BA and had been told they needed no prior experience with computers. My role consisted of providing emotional and practical support in roughly equal proportions, and I built up a very good relationship with the students, several of whom claimed afterwards that I played a major part in convincing them not to give up and change course.

Natural Languages

I have A levels (both grade A) in French and German. I read material in both languages comfortably, and keep my spoken French and German usable by visiting both countries as often as I can.

Hobbies

I am a great fan of outdoor sports, particularly skiing and cycling. In 2001 I raised over £6,000 for a mentally handicapped peoples' charity by participating in a sponsored bike ride in China.

I have been learning various forms of traditional Chinese Kung Fu since 1997. I am experienced enough now to occasionally help my instructors when there is an influx of beginners to a class.

I travel abroad whenever I get the chance; in fact I am taking advantage of the natural break provided by the end of my MSc to go on my most ambitious journey yet – 4 months across Europe & Asia on the way to New Zealand.