

Curriculum Vitae

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| Name: | Martin Strauss |  |
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| E-mail: | martin@ockle.org | |
| Birth: | 19th July, 1983; Köln, Germany | |
| Citizenship: | Australian (naturalised 26th January 1988) | |
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Professional Interests

Human-computer interaction, in particular input/output systems and intelligent user interfaces; and applications of programming language design and AI in the automation of software engineering processes.

Education

2004 – 2005 Taste of Research Summer Scholarship The University of New South Wales and National ICT Australia

I investigated the technologies and applications of the field of affective computing (the use of emotions in AI and interface design). I produced a preliminary ontology of affective computing concepts, for use in a hypothetical agent or affective application. The results of my work were presented at a poster session at UNSW, and in a report titled “The Logics of Emotion: a survey of the field of Affective Computing” (see Publications below, [2])

2001 – 2005 Bachelor of Engineering (Software), Diploma of Music (Practical) The University of Melbourne

Graduated 2005 with first class Honours.

- Ormond Scholar, Ormond College, 2001, 2003 – 2005
- Choral Scholar, Ormond College, 2001 – 2005
- MacFarland Scholar, Ormond College, 2005
- McCaughey Scholar, Ormond College, 2004
- Music Scholar, Ormond College, 2002
- Centenary Scholar, Ormond College, 2001

1999 – 2000 Melbourne University Program for High Achieving Students The University of Melbourne

First year Music Performance, Piano, 1999 (first class Honours); and First Year Mathematics, 2000 (second class Honours, division A)

1999 – 2000 International Baccalaureate Geelong Grammar School

Score of 44 out of possible 45 with perfect subject scores in 5 of 6 subjects, as well as perfect scores for the Extended Essay and Theory of Knowledge.

Title of Extended Essay: “An investigation into matrix encryption for the purpose of enciphering text messages” (see Publications below, [1])

1994 – 2000 Geelong Grammar School

- Academic Scholarship, 1994 – 2000
- Music Scholarship, 1995 – 2000

1989 – 1993 The Geelong College

Other Training

December 2004

The Australian Logic Summer School

As part of my National ICT Australia Summer Scholarship, I attended the Australian Logic Summer School at the Australian National University’s Research School of Information Sciences and Engineering. There, I participated in lectures, workshops and seminars on the mathematical and philosophical foundations of logic, and a wide variety of applications of logic in computing, including theorem proving, constraint programming, artificial intelligence and knowledge representation and reasoning.

February 2002

SecureCON

I attended the inaugural University of Melbourne Local IT Experts Security Convention, and participated in seminars and workshops on topics such as securing web servers, using intrusion detection systems, using network traffic monitors, writing a information security policy and managing a security compromise.

April 2000

Australian Business Week

I was one of 66 Victorian students awarded a scholarship to participate in the Australian Business Week. This is a one-week intensive residential program aimed at developing the entrepreneurial and small business culture of young Australians. During this program, I also participated in a Team Skills Development workshop.

Publications

[1] Martin Strauss, *An investigation into matrix encryption for the purpose of enciphering text messages*. International Baccalaureate Extended Essay, Geelong Grammar School, November 2000.

[2] Martin Strauss, *The Logics of Emotion: a survey of the field of Affective Computing*. University of NSW Taste Of Research Summer Scholarship report, February 2005.

Employment

2004 – 2005 Software Engineering Project and Advanced Software Engineering Project

As part of my Software Engineering degree at the University of Melbourne, I participated in two industrial projects. In the first, I was in a team of 5 software

engineers who developed a software package for researchers in the Optics group in the School of Physics at Melbourne University. For the second, I was in a team of 15 software engineers who developed a software package for researchers in the Department of Information Systems at Melbourne University. In each project, We conducted all of the activities of the software and project lifecycle, including planning and managing the software process, requirements elicitation, documentation, requirements analysis, specification, design, implementation and testing. As part of both projects, we were required to communicate effectively both with each other and with the client, and undertake a variety of leadership positions during the course of the project. As technical manager and Executive Officer of the first team, my tasks included training the other team members in the tools and software used during the project, supervising team “work sessions”, and setting and monitoring weekly team goals and objectives; as quality assurance manager and build manager in the second team, my tasks included setting quality objectives for our product, developing, documenting, monitoring and improving quality processes for our team, and overseeing and managing the tasks and schedule for the final build of our software system.

2001 – 2005 Ormond College College Crescent, Parkville, VIC 3052

I worked in the IT administration department at Ormond College, first as Assistant IT Administrator in 2001, then as IT Administrator from 2002 onwards. As well as administering a network consisting of several Linux servers, a computer room of 15 Windows NT/2000 workstations, 15 employee Windows workstations and a variable number of student workstations (Windows, Mac and Linux), I participated in the planning and implementation of an LDAP-based authentication and mail routing system, and later in the planning and implementation of a full network hardware upgrade from 10Mbps unswitched to 1Gbps backbone and 100Mbps to the desktop, fully switched, including the extension of the LAN to include a number of terrace houses in the surrounding suburbs owned by Ormond College.

Summer 1999, 2000

Rohm and Haas Australia Pty. Ltd. Hays Road, Point Henry, Geelong, VIC 3220

During the 1999/2000 and 2000/2001 summer holidays, I worked for Rohm and Haas Australia Pty Ltd in their Geelong Technical Centre. I assisted industrial chemists with research and technical service projects, working at the cutting edge of paint technology.

Other positions held

2003 Head of Pleasant Sunday/Wednesday Evening Subcommittee of the Ormond College Students' Club

As head of the PS/WE subcommittee, I was responsible for organising a series of relaxed social events throughout the academic year for the members of the Ormond College Students' Club. I was required to write and work with a budget for these events, and manage a subcommittee of around 20 members to organise venues, food and beverages, and entertainment.

2003 – 2005 Senior Chorister, the Choir of Ormond College

In addition to singing with the Choir of Ormond College, as Senior Chorister I had the responsibility of assisting the Director of the Choir in a variety of ways, including managing the Friends of the Ormond Choir and writing an annual newsletter;

organising choir events, a choir contact list, etc; assisting the Director in organising concerts and a biennial overseas concert tour; organising the Choir's rehearsals and occasionally leading the Choir in rehearsals; and conducting the Choir in the Director's absence.

2000 School Music captain, Geelong Grammar School

As co-School Music Captain of GGS, I was responsible for assisting the Director of Music in the running of the Music School and musical events, including leadership on the 2000 Choir concert tour of Europe; leadership and organisation of musical groups; MC-ing at various events and functions; and organisation and occasional leadership of rehearsals.

2000 House Music captain, Allen House, Geelong Grammar School

As co-House Music captain of Allen House, I was responsible for preparing Allen House's entry in the annual House Music competition at GGS. As part of this, I organised small groups from within the house as well as a House Choir involving every member of the house; I organised and led rehearsals; I taught music to the most unmusical members of the house; and I had to motivate a large number of unenthusiastic participants. We were rewarded for our efforts with second place in the competition (out of 6 houses).

1999 – 2000 House Debating captain, Allen House, Geelong Grammar School

As House Debating captain of Allen House, I was responsible for organising Allen House's entry in the annual House Debating Competition at GGS. This task included organising debating teams from among the members of the house, in some cases teaching novices to debate; liaising with House Debating captains from other houses to organise times and venues for debates; and chairing debates for other houses.

1996 House captain, Austin House (Middle School), Geelong Grammar School

As House captain of Austin House, I was responsible for organising the sporting teams for the inter-house swimming and athletics competition; leading the students in house cheers; and taking responsibility for student behaviour at these events.

Awards

Geelong Grammar School Awards

- Triple Distinction Prize (1996)
- Distinction Prize (1995, 1997)
- Double Distinction Prize (1998)
- General Academic Excellence Award
- School colours for Public Speaking
- School colours for Music
- School colours for Debating
- School colours for Academic Work

- Distinctions in English (1995, 1996, 1997, 1998), Mathematics (1995, 1996, 1997, 1998, 1999), Science (1995, 1996), Japanese (1995, 1996, 1997, 1998), Music (1995, 1996, 1997), Religious Education (1996), Geography (1996), History (1997, 1998), Physics (1998, 2000), Chemistry (1998), Music Performance (1998), Economics (1999).
- Mackinnon Prize for Mathematics
- Charles Murray Maxwell Prize for Chemistry
- ANZ Bank Prize for Economics
- I M Cook Prize for Music
- Academic Scholarship, 1994 – 2000
- Music Scholarship, 1995 – 2000

The University of Melbourne Awards

- Centenary Scholar, Ormond College, 2001
- Music Scholar, Ormond College, 2002
- McCaughey Scholar, Ormond College, 2004
- MacFarland Scholar, Ormond College, 2005
- Ormond Scholar, Ormond College, 2001, 2003 – 2005
- Choral Scholar, Ormond College, 2001 – 2005

Other Academic Awards

- Winner, Mathematical Association of Victoria Maths Talent Quest (1993)
- Distinction, NAB Languages Certificate (1996)
- Member of winning team, Deakin University Mathematics Competition (1998)
- Special Achievement Award (highest school score), Australian Mathematics Competition (Australian Mathematics Trust) (1999)
- Member of runner-up team (and winners of the Judges' Prize), Melbourne University Mathematics Society puzzle hunt (2004)

Miscellaneous Awards

- Duke of Edinburgh Award, Bronze Medal (1997)

Music Awards

- AMEB Pianoforte Diploma, Associate in Music, Australia (AMusA), October 1994
- Chosen from Australia-wide as one of twenty "outstanding young musicians" for Asia-Australia Culture and Arts Centre tour of People's Republic of China (1996)
- AMEB Flute Diploma, Associate in Music, Australia (AMusA), May 1996
- AMEB Pianoforte Diploma, Licentiate in Music, Australia (LMusA), September 1996

- Selected to participate in the National Academy of Music Piano Master Classes, (1999 – 2004)
- Finalist, Yamaha Australian Youth Piano Championship (1999)
- Winner, Lions Club Scholarship, Dandenong Festival of Music and Art for Youth (2001)
- Winner, Dorothy Glover Piano Scholarship (2001)
- Finalist, Lev Vlassenko International Piano Competition (2001)
- Finalist, Hephzibah Menuhin Memorial Awards (several occasions)
- Winner, Australian Youth Pianoforte Recital, Dandenong Festival of Music and Art for Youth (2002)
- Winner, Gold Medallion for most outstanding Pianist in the festival, Dandenong Festival of Music and Art for Youth (2001, 2002)
- Runner-up, Geelong Advertiser Music Scholarship (2002)
- Winner, Highton Rotary Club annual Star Search (2002)

University Marks

| code | subject title | mark | grade |
|--------|---|------|-------|
| 740136 | Music Performance 1 | 89 | H1 |
| 620120 | MUPHAS Mathematics | 76 | H2A |
| 431102 | Digital Electronics and Microprocessors | 75 | H2A |
| 433141 | Computing Fundamentals A | 89 | H1 |
| 436105 | Engineering Communications | 88 | H1 |
| 620143 | Applied Mathematics | 82 | H1 |
| 431103 | Electrical Circuits | 68 | H3 |
| 431201 | Engineering Analysis A | 74 | H2B |
| 433142 | Computing Fundamentals B | 89 | H1 |
| 436101 | Engineering Mechanics and Materials | 72 | H2B |
| 740104 | Ensemble 1-1 | 87 | H1 |
| 740103 | Ensemble 1-2 | 95 | H1 |
| 740146 | Practical Study 1D | 90 | H1 |
| 431202 | Engineering Analysis B | 62 | P |
| 431204 | Digital Systems 2: System Design | 69 | H3 |
| 436202 | Mechanics 1 | 63 | P |
| 436280 | Mechatronics Design and Laboratory | 52 | P |
| 431221 | Fundamentals of Signals and Systems | 71 | H2B |
| 433252 | Software Engineering Principles and Tools | 90 | H1 |
| 436201 | Thermofluids 1 | 74 | H2B |
| 436281 | Mechatronics Design and Laboratory 2 | 68 | H3 |
| 740204 | Ensemble 2-1 | 92 | H1 |
| 740203 | Ensemble 2-2 | 90 | H1 |
| 740246 | Practical Study 2D | 90 | H1 |
| 433253 | Algorithms and Data Structures | 69 | H3 |
| 433254 | Software Design | 89 | H1 |
| 433255 | Logic and Computation | 76 | H2A |
| 433353 | Networks and Communications | 76 | H2A |

| code | subject title | mark | grade |
|--------|---|------|-------|
| 433361 | Programming Language Implementation | 86 | H1 |
| 433371 | Interactive System Design | 87 | H1 |
| 640142 | Physics B | 81 | H1 |
| 740308 | Ensemble 3-1 | 90 | H1 |
| 740344 | Ensemble 3-2 | 90 | H1 |
| 740346 | Practical Study 3D | 82 | H1 |
| 433330 | Theory of Computation | 80 | H1 |
| 433341 | Software Engineering Process and Practice | 75 | H2A |
| 433343 | Professional Issues in Computing | 82 | H1 |
| 433303 | Artificial Intelligence | 83 | H1 |
| 433342 | Software Engineering Methods | 77 | H2A |
| 740315 | Romantic Piano Music | 80 | H1 |
| 433340 | Software Engineering Project | 88 | H1 |
| 433441 | System Modelling and Analysis | 82 | H1 |
| 433443 | Software Project Management | 82 | H1 |
| 433448 | Applied Cryptography and Coding | 85 | H1 |
| 433440 | Advanced Software Engineering Project A | 78 | H2A |
| 433471 | Logic Programming | 73 | H2B |
| 740301 | Music and Film | 90 | H1 |
| 433444 | Advanced Software Engineering Project B | 78 | H2A |