NIELS JOUBERT

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EDUCATION

University of California, Berkeley (2005 – present, Berkeley, CA)
B.Sc. Honors in Electrical Engineering and Computer Science, expected graduation: May 2009.
Cumulative Unweighted GPA: 3.86 (Aug 2005 - current)

Los Altos High School, Grade 12 (2005, Los Altos, CA)
Graduated Valedictorian, Cumulative Unweighted GPA: 4.0

Paul Roos Gymnasium, Grade 8 – 11 (2001 – 2005, Stellenbosch, South Africa)
Honored as best scholar 4 consecutive semesters, Cumulative grade: 108%

SKILLS

Software Development using C/C++, Java, Python, MATLAB, Scheme, CVS/SVN. *Nix, OS/X & Win32
Experienced in Computer Graphics principles and Networking (protocol analysis & design)

Web Development using Rails, PHP, JavaScript, XML/HTML, CSS and AJAX techniques.

Comfortable with rapid prototyping, SCRUM development and Extreme Programming principles.
Strong and recognized interpersonal and verbal/written communication skills.

PROJECTS & PUBLICATIONS

For a complete portfolio of projects and research, see my online portfolio at http://njoubert.com/

Brutesoft inc. System Administration for stealth startup in enterprise P2P software.

Physically Based Simulator Real time cloth and fracture simulation, SIGGRAPH paper in progress.

Raytracer Rendering high-quality scenes with global illumination effects.

Red5 Flash Video Server Flash video server supporting synchronous video sharing. SIGCHI 2008 paper.

2draw.net Online Art Community Website, focused on education and free online drawing tools.

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WORK AND RESEARCH EXPERIENCE

Berkeley Computer Animation & Modeling Research Group, 08/2008 – present: Graphics researcher in UC Berkeley's Graphics Lab under Prof. James O'Brien. Projects include Real-time physical simulations modeling deformable thin surfaces and fracture.

UC Berkeley Teaching Staff, 01/2008 – present: Student Instructor for Computer Graphics course, responsible for co-teaching class with faculty. Tutor for self-paced Introduction to CS courses.

Pixar Animation Studios, Next Generation Tools, 06/2008 – 08/2008: Extended Pixar's in-house animation tool to support symmetry in rigging models, and NURBS surface animation.

Yahoo! Research Berkeley, 01/2007 – 01/2008: Expanded video server as research platform, built prototypes for Yahoo Live & location aware software. Published paper accepted into SIGCHI 2008.s

RELEVANT COURSEWORK

CS 294 Physically Based Animation (In Progress)
CS 170 Efficient Algorithms (In Progress)
CS 188 Artificial Intelligence (A-)
CS 184 Computer Graphics (A+)
CS 162 Operating Systems (A)
CS 61C Machine Structures, C and MIPS (A)
CS 61B Data Structures and Java (A)
CS 61A Program Structure and Interpretation (A+)
Math 110 Linear Algebra (A-)
EE 126 Probability and Random Processes (B)
EE 122 Computer Networks (A)
EE 120 Signals Processing (A)
EE 40 Microelectronic Circuits (A-)
EE 20N Signals and Systems (A)
Astro121 Radio Astronomy (A+)
Astro162 Planetary Astrophysics (A-)

HONORS, AWARDS & RECOGNITION

09 – Outstanding Graduate Student Instructor award received as an undergrad.
08 – Golden Key Club nominee as a student in the top 5% of UC Berkeley.
07 – Elected as Industrial Relations Officer for the HKN Engineering Honors Society
07 - Accepted into Berkeley's B.Sc. Honors Degree program
06 - Yahoo! University Hack Day winner at UC Berkeley.
06 - Recipient of William B. Slottman Award as the best counselor for incoming students.
05 - Chancellor's Honors for outstanding academic achievement at UC Berkeley.
02 - Gold Medal in Expo for Young Scientists, recipient of Electrical & General Engineering prizes.

INTERESTS

Mountain Biking, Snowboarding, Music (Violin, Bass Guitar and DJing), Amateur Radio, Videography