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/ Client-Server Cloth Simulator Real time cloth simulation, SIGGRAPH 2009 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. ...
WORK AND RESEARCH EXPERIENCE	**Berkeley Computer Animation & Modeling Research Group,** 08/2008 – present: Exploiting client-server game environments to improve simulation quality. SIGGRAPH 2009 paper in progress. **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. **Berkeley Supernova Research Team**, 06/2006 – present: Detecting new supernova and photometry observations to track supernovae evolution. Acknowledged in paper in The Astrophysics Journal **UC Berkeley New Student Services,** 01/2006 – 08/2006: Cal Student Orientation Counselor
RELEVANT COURSEWORK	CS 188 Artificial Intelligence (In Progress) Math 110 Linear Algebra (In Progress) CS 162 Operating Systems (A) EE 126 Probability and Random Processes (B) CS 184 Computer Graphics (A+) EE 122 Computer Networks (A) CS 61C Machine Structures, C and MIPS (A) EE 120 Signals Processing (A) CS 61B Data Structures and Java (A) EE 40 Microelectronic Circuits (A-) CS 61A Program Structure and Interpretation (A+) EE 20N Signals and Systems (A) Astro121 Radio Astronomy (A+)
HONORS, AWARDS & RECOGNITION	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