

EDUCATION	<p>University of California, Berkeley (2005 – present, Berkeley, CA.) B.Sc. Honors in Electrical Engineering and Computer Science, expected graduation: May 2009. Cumulative GPA: 3.85</p> <p>Los Altos High School, Grade 12 (2005, Los Altos, CA) Graduated Valedictorian, Cumulative Unweighted GPA: 4.0</p> <p>Paul Roos Gymnasium, Grade 8 – 11 (2001 – 2005, Stellenbosch, South Africa.) Best scholar 4 semesters running, Cumulative grade: 108%</p>
SKILLS	<p>Software Development using C, C++, MIPS assembly, Java 5 & Junit, CVS/Subversion and Scheme.</p> <p>Web Development using RubyOnRails, PHP, JavaScript, XML, HTML, CSS and AJAX techniques.</p> <p>Network Programming implementing, analyzing and using network protocols, especially TCP/IP.</p> <p>Comfortable with rapid prototyping environments, SCRUM dev teams and Extreme Programming. Strong and recognized interpersonal and verbal/written communication skills.</p>
PROJECTS	<p>Red5 Open Source Flash Video Server Implemented FLV file access and indexing, REST driven on-the-fly track splicing, and several synchronized video sharing applications running on this platform.</p> <p>2draw.net Online Art Community Website, focused on education and free online drawing tools.</p> <p>Modified TCP implementation using selective acknowledgments and TCP Vegas style congestion control to improve TCP Throughput and performance in lossy situations.</p> <p>Ray Tracer using no external libraries, supports matrix transforms, OBJ file input and Phong shading.</p> <p>Particle Simulator using custom Quadtree and natural elastic collision physics, supports 10 000 points in a real-time graphical simulation.</p>
WORK EXPERIENCE	<p>Yahoo! Research Berkeley, January 2007 – January 2008: Expanded Flash Video server into research platform. Built prototypes on this platform, integrated into live.yahoo.com. Contributed to location aware software and hardware prototypes, including WiFi to Location mapping systems.</p> <p>Berkeley Supernova Research Team, June 2006 – present: Image analysis to detect new supernova.</p> <p>UC Berkeley New Student Services, Jan 2006 – August 2006: Cal Student Orientation counselor.</p>
PUBLICATIONS	<p>"Enhancing online personal connections through the synchronized sharing of online video" David A. Shamma, Marcello Bastea-Forte, Niels Joubert, Yiming Liu. Accepted to CHI 2008</p>
RELEVANT COURSEWORK	<p>CS 162 Operating Systems (In Progress) CS 184 Computer Graphics (In Progress) CS 61C Machine Structures, C and MIPS (A) CS 61B Data Structures and Java (A) CS 61A Structure and Interpretation of Computer Programs (A+) EE 126 Probability and Random Processes (B) covering fundamental probability laws EE 122 Computer Networks (A) focusing on HTTP, TCP/IP and core network protocols EE 120 Signals Processing (A) covering Fourier, La Place and Z Transforms and LTI Systems EE 40 Microelectronic Circuits (A-) EE 20N Signals and Systems (A) covering discrete and continuous time LTI systems and their properties Astro121 Radio Astronomy (A+) involving electronics, programming, signal processing, graphics and estimation/detection techniques in interferometry and mapping of radio sources.</p>
HONORS, AWARDS & RECOGNITION	<p>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. 05 - Chancellor's Honors for outstanding academic achievement at UC Berkeley (top 5%). 02 - Gold Medal in Expo for Young Scientists, recipient of Electrical & General Engineering prizes.</p>
INTERESTS	<p>Mountain Biking, Snowboarding, Music (Violin, Bass Guitar and DJing), Amateur Radio, Videography, Art</p>