bob somers

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video example work
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project blog
sigttou.com

work

CISCO SYSTEMS, R&D

Graduate Level Software Engineering Intern

Prototyped new graphical user interfaces for highly location-aware applications intended to run on a currently unannounced Cisco computing platform. Built prototypes of the interface using OpenGL ES on Google's Android operating system. Contributed to four patent applications related to the new platform that have been filed with the US Patent Office and are awaiting approval.

San Jose, CA 6/10 — 9/10

CISCO SYSTEMS, TEST

Software Engineering Intern

Developed a testing framework named Calypso that stress tests SNMP performance of Cisco's service-provider routers. The framework creates complex polling patterns and generates graphical reports that identify and highlight critical performance bottlenecks. Calypso is being widely adopted throughout Cisco, won the Core Routing Unit's Test Innovation Award, and the prestigious Cisco RAS Award in Q2 FY 2010.

San Jose, CA 6/09 — 9/09

IFIXIT

Web Developer

Develop our Guidebook software platform for web-based manuals.

San Luis Obispo, CA 6/11 — now

CAL POLY COMP. SCI.

Grader and Lab Writer

Grade assignments for Intro to Graphics and write CUDA labs.

San Luis Obispo, CA 9/10 — 6/11

CAL POLY COMP. ENG.

Open Lab Assistant

Provide guidance to students taking embedded systems labs.

San Luis Obispo, CA 4/09 — 6/11

school

CAL POLY, SLO

M.S. Computer Science

Thesis: FlexRender: A distributed renderer for ray tracing huge scenes on commodity hardware w/ hybrid machine architectures.

GPA: 3.83 9/10 — 6/12

CAL POLY, SLO

B.S. Computer Engineering

Developed custom electronics for Supermileage Vehicle Team. Prototype car gets 2,358.7 mpg.

GPA: 3.33 9/05 — 6/10

COURSEWORK

OpenGL Graphics	Computer Architecture	Business Law
Advanced Rendering	Comp. Sci. Fundamentals	Oral Comm.
Real-Time Graphics	Embedded Systems	Tech. Writing
Advanced Security	PCB Design	Calculus
Computer Networks	Electronics Packaging	Physics
Operating Systems	Circuit Analysis	Capstone Project
Parallel Programming	Linear Algebra/Analysis	Senior Project

DELICIOUS BUZZWORD SOUP

Langs: C, C++, Lua, Java, Assembly, VHDL, PHP, SQL, XHTML, CSS, JS

Tools: Git, SVN, Qt, MSVS, HL2 SDK, Adobe Suite, Xilinx, AVR, Apache

play

CHRISTMAS LIGHTS

Designed and built a Christmas light animation system from scratch for fun. Over 9,000 lights on 32 dimmable channels synchronized to Christmas tunes broadcast over a low-power FM transmitter. Videos of the show in action at:

vimeo.com/album/159981

CLUBS AND GROUPS

Cal Poly Game Development
Club Treasurer

Cal Poly Supermileage Vehicle
Lead Electronics Engineer

Cal Poly Symphony and Pep Band
Trumpet Player

Blue Devils B Drum Corps
2008 Open Class Silver Medalist

Boy Scout Troop 218
Eagle Scout and Merit Badge Counselor

TWO CITIES GAME

Built a 3D game from scratch using C++, OpenGL, and GLSL. Worked on a team with 5 other programmers. Personally wrote dynamic cloud and circuitry-skyscraper shaders. Developed edge glow shaders and shockwave shaders for effects. Wrote custom HUD UI. Video at: tiny.cc/2cities