Bjørn Hansen

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EDUCATION

- **University of Washington**— Seattle, Washington, 2004 - present
  Master of Aeronautics and Astronautics Engineering
  - Depth Area of Study: Plasma Science
  - GPA 3.67
- **University of Victoria**—Victoria, British Columbia, 2000 - 2004
  Bachelor of Science
  - Graduated with Distinction in June 2004 with a Major in Physics, and a Minor in Mathematics
  - Graduating GPA: 7.13 out of 9 (A- average)
- **University of Hawaii**—Honolulu, Hawaii, 1999 - 2000

SKILLS

- Strong physics and mathematics background
- Experienced with shop tools and carpentry
- Design and construction (wiring and soldering) of simple electrical systems
- Group coordination and organization
- Team player; get along well with others
- Quick Learner, adept self teacher
- Excellent verbal and written communication skills
- **Languages**
  - C and C++, Python, LabView, Bash, Java (incl. Swing, AWT, EJB, JSP, and JDBC), Javascript, Basic, Perl, PHP, SQL
- **Software**
  - Development Environments: Eclipse, Dev C++, Kdevelop, Code::Bocks, Emacs, SPE
  - Debugging: gdb, pdb
  - Unit Testing: Junit, pyunit
  - Version Control: CVS, SubVersion, Bazaar
  - Database: MySQL and PostgreSQL
  - Mathematics: Matlab, SciPy, Pylab, Maxima, Mathematica
  - Graphics: Gimp, Inkscape, Blender
  - Office: Microsoft Excel, Word, and Powerpoint, OpenOfice.org, Abiword
  - System installation and administration for Windows (95, 98, XP), Linux (Red Hat, Mandrake, Debian, Ubuntu).

EXPERIENCE

- **University of Washington, RPPL**— Seattle, Washington, September 2004 - Present
  Research assistant
  - Working on an Innovative Confinement Concept device for magnetically confined fusion plasmas at the Redmond Plasma Physics Laboratory. Primary projects include design, implementation, and documentation of the glow discharge system, heater control system, and the vacuum control system. The vacuum control system consists of a network of DeviceNet hardware devices, controlled by software written using LabView. Additional duties include: conducting tests, designing and selecting parts, machining components and coordinating with other scientists and engineers to develop designs and specifications.
  - Supervisor: Dr. Alan Hoffman
- **Soccer Association of Homer**—Homer, Alaska, Summers 1998 - 2004
  Coach and League Coordinator
  - Youth Soccer League Coordinator, summers of 2002 and 2003 and Youth Soccer Coach, summers of 1998 - 2004
- **Alaska Sports Surfaces**—Homer, Alaska, Summers 1999 - 2000
  Artificial field turf installer
  - Assisted with all aspects of installation of fields in Anchorage, Alaska, and at Husky Stadium in Seattle, Washington.

TECHNICAL ACCOMPLISHMENTS

- **Balder and Balder2D**—October 2001- Present
  Project Administrator/Lead Programmer
  - Balder and Balder2D are open source zero gravity shooters. Focus shifted from Balder (3D) to Balder2D in the fall of 2004. Both games are written primarily in C++. AI for Balder2D is written in Python. Balder uses the Crystalspace 3D engine for graphics and sound, while Balder2D uses the SDL library. Balder2D is currently version 1.0, release candidate 1. Duties include: majority of design work and implementation for both projects, supervising work done by other team members, and maintaining the project website and releases.
  - Project Home Page: http://balder.sourceforge.net
- **Website Designer and Administrator** —March 1999- Present
  - Designed, created, and currently maintaining websites for Otter Beach Educational Center (otterbeach.org), Soccer Association of Homer (homersoccer.com), and for various personal projects (homerhigh1999.com and others).
  - Designed and created a website for Sailwood Adventures (2002)

REFERENCES

- Dr. Alan Hoffman
  Redmond Plasma Physics Laboratory
  (425) 881-7706
- Dr. Richard Milroy
  Redmond Plasma Physics Laboratory
  (425) 881-7706