



Lance Arsenault

1400 Greendale Drive
Blacksburg, VA 24060

540-951-0682
lance.arsenault@gmail.com

Objective

develop software, prefer GNU/Linux and like systems

Education

Ph.D., Physics, University of Illinois at Urbana-Champaign ([UIUC](#)), 1996 ([abstract.html](#))

M.S., Physics, University of Illinois at Urbana-Champaign, 1989

B.S., Physics, University of Massachusetts ([UMass](#)) at Dartmouth, 1986

Experience

Visualization & Virtual Reality Systems Specialist, [Virginia Tech](#)

November 2016 - January 2022, Maintain and manage systems in the [Visionarium Lab](#) and providing visualization consultation, programming support, and facility tours, as part of the [ARC \(Advanced Research Computing\)](#) group. It's working in the same Lab space as [before](#).

Senior Software Engineer, [Librato Inc.](#) (3.2 years)

August 2006 - November 2009, Developed software that sits between user applications and the standard C library which provides seamless checkpoint and restart of large and long running Linux cluster applications.

Instructor, [Virginia Tech](#), [Department of Physics](#) (1.4 years)

January 2005 - May 2006 Developed and taught physics classes, part time. Taught classical mechanics for juniors/seniors, and E/M for sophomore engineering majors.

Supervising Analyst, [AMA Inc.](#) (5 months)

July 2003 - November 2003, As the computer programmer part of a team that did contracted worked for [NASA Langley](#) researcher [Ruth M. Amundsen](#) and that automated portions of the thermal analysis of the [Hyper-X](#) aircraft, I wrote interface code using Microsoft VBA for Excel, contributed to the development of [MSC/PATRAN thermal](#) FORTRAN user code, and wrote and modified other supporting scripts using [CYGWIN](#).

Research Assistant Professor, [Virginia Tech](#) (3.8 years)

July 2001 - March 2003, [Department of Computer Science](#), Virtual Reality Programming at the [Virginia Tech CAVE™](#). Continued the design and development of the general VR simulation software called [DIVERSE](#).

May 1999 - July 2001, [Department of Engineering Science and Mechanics](#), Virtual Reality Programming at the Virginia Tech CAVE, built a Crane Ship Simulator and general virtual prototyping system by incorporating a [MOOG](#) 6 degree-of-freedom motion base into a [Fakespace](#) CAVE (now [Mechdyne](#)) in support of the MURI (Multi-Disciplinary University Research Initiative) program, and designed and developed general VR simulation software like DIVERSE. [Images from working at the VT CAVE](#)

Research Programmer NCSA (3 years)

at the National Center for Supercomputing Applications ([NCSA](#)) at UIUC

April 1997 - May 1999, Visualization Programmer, Worked with [Caterpillar](#) engineers on virtual prototyping projects, explored the latest VR software and hardware technologies, and developed software for virtual prototyping.

May 1996 - April 1997, Specializing as an Industrial Consultant for Caterpillar Inc., provided primary contact between Caterpillar engineers and NCSA.

Skills

- **Fifteen years experience in programming in C**
- **Nine years experience in programming in C++**
- **Experienced in programming on GNU/Linux, IRIX (SGI), HPUX (HP), and MS Windows**
- **Experienced in developing Web services using *GNU/Linux, Apache, PHP, JavaScript, HTML 4.01* and *HTML 5*. Used virtual servers to run the service customizing the GNU/Linux OS.**
- **Experienced in programming with scripting languages *bash, JavaScript, sh, tcl/tk, PHP, VBA, Ruby* and *make***
- **Eight years of university teaching experience**
- **Skilled in carpentry, electronics, and mechanics, from building residential dwellings to real-time interactive simulators**
- **Experienced in using the Standard Template Library (STL), GNU Autotools, GNU Debugger (GDB), Git, Subversion and CVS version control systems, [FLTK](#) API, [GTKmm](#) API, [GTK+](#) API, QT API, Sockets API, CAVELibs API, OpenGL Performer API, MultiGen Creator, WorldToolkit API, Emacs, vim, CScope, MS PowerPoint, Latex, MS Word, VC++ IDE.**

Updated: 2024 January 18 10:33:23 PM (UTC)