

David Pritchard

Summary of Qualifications

- **Problem solver** with outstanding computer and mathematics skills.
- **Trained transportation modeller** with an understanding of classical four-stage models, demand modelling and the activity-based approach
- **Strategic thinker** and researcher with a big-picture understanding of transportation, land use and urban politics
- **Clear communicator** with proven writing ability and strong cartography, web publishing and graphic design skills
- Familiar with many tools for statistical modelling, data management, GIS and programming: R/S Plus, PostgreSQL/PostGIS, ESRI suite, C/C++, Python, FME Workbench, Matlab, Access; exceptionally fast learner

Selected Work Experience

TransLink / GVTA May 2006 – Aug. 2006 Burnaby, BC
Transportation Data and Applications Development Specialist

- Measured conformance of bus system to Transit Service Guidelines, using schedule and manual ride check data
- Improved measurement methodology and updated guidelines
- Visualized system frequency and end-of-service performance
- Designed data model and toolchain for automated analysis of a large volume of ride check and automatic passenger count (APC) data
- Contributed to long-range transit network planning consultation, including facilitation of stakeholder group

Side Effects Software Dec. 2003 – Apr. 2006 Toronto, ON
3D Software Developer, Houdini dynamics team

- Researched and programmed physics-based cloth simulator in C++
- Worked remotely on an independent basis from Vancouver, BC

Various Co-op Employers 1996...2001 Toronto, Ottawa, Montréal
Co-op Intern (six work terms, four months each)

- Employers: Alias | Wavefront and Discreet (now Autodesk), Side Effects Software, alt.software, and Cadabra Design Libraries

Selected Volunteer Experience

City of Vancouver Sep. 2005 – Aug. 2006 Vancouver, BC
Chair, Bicycle Network Subcommittee

- Facilitated discussion and organized agendas
- Advocated improved bicycle facility design: reduce conflicts at intersections with heavy-right turns; include bike boxes for "hook" left turns; use median refuges on arterials.

Van. Area Cycling Coalition Sep. 2002 – Aug. 2006 Vancouver, BC
Vancouver committee member; director (2005–2006)

- Reorganized content and messaging of VACC's website, vacc.bc.ca.
- Led response to City of Vancouver's Downtown Transportation Plan
- Attended ProWalk/ProBike conference
- Completed Vélo Québec Bikeway Planning and Development course

Independent Research Sep. 2003 – Mar. 2006 Vancouver, BC

- Independent reading in sustainable transportation issues, hundreds of articles. See bibliography at davidpritchard.org/sustrans-bib
- Focus of reading: land use/transport linkage, bicycle facility design, microsimulation models, parking policy, climate mitigation
- Built Google Map of Vancouver and Toronto transit systems

Education

University of Toronto 2006–2008 (exp.) Toronto, ON
M.A.Sc. in Civil Engineering

- Transportation Planning program, A+ in all courses
- Research project: synthesis of microsimulation agents (persons, families, households, dwellings, vehicles, firms) from census and travel survey data; analysis using log-linear models
- Part of Integrated Land Use Transportation Environment (ILUTE) model team under Dr. Eric Miller

University of British Columbia 2001–2003 Vancouver, BC
M.Sc. in Computer Science

University of Waterloo 1996–2001 Waterloo, ON
B.A.Sc. in Computer Engineering

- Overall average of 92% (M.Sc.) and 90% (B.A.Sc.)
- One year exchange in Switzerland (1999–2000), all courses in French

Awards Received

- Best student presentation at Canadian Regional Science Assoc. (2007), *Understanding Iterated Proportional Fitting Using Log-Linear Models*
- Transportation Association of Canada's Provinces & Territories Award, \$4000 (2007)
- Ontario Graduate Scholarship of \$30,000 total (2006, 07)
- NSERC graduate scholarship of \$32,000 total (2001)
- British Columbia ASI fellowship of \$5000 (2001)
- Top 1% in Canada in Descartes mathematics contest (1996)

Languages

English: mother tongue

French: excellent comprehension, good spoken; some written