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Transferable Skills

- ◇ Identifying infrastructure deficiencies and improving them.
- ◇ Maintaining “big picture” judgement while working through details.
- ◇ Troubleshooting and solving problems.
- ◇ Learning unfamiliar new technologies, implementing them, maintaining them, and teaching them to others.
- ◇ Prioritizing technology for the benefit of users.
- ◇ Communicating patiently and clearly with users of all skill levels.

Recent Activities

IT Generalist, The Working Centre, 2008-2016, 2019-present

Systems administration (approximately [SAGE Level III](#)) and user support for an ambitious nonprofit with a frugal budget. IT infrastructure ranges from employment counsellor workstations to medical clinics, with lots in between. A few highlights:

- ◇ Upgrade and re-architect on-premises **Active Directory** and **Microsoft Exchange** infrastructure.
- ◇ Sanitize and isolate network infrastructure (**pfSense**, **Cisco** switches); connect six remote locations into one domain (**OpenVPN**, **DFS**); enable employees to work safely from home (**OpenVPN**, **Hamachi**, **BigBlueButton**).
- ◇ Develop automated installers (**Windows WAIK**, **Debian/Ubuntu preseed**) and package deployment (**WPKG**, **Saltstack**, **WSUS**, **wsusoffline**) while maintaining license compliance.
- ◇ Research and deploy monitoring (**ELKstack**, **Nagios**, **Cacti**, and others) and ticketing (**Request Tracker**) systems for internal IT use.
- ◇ Script Windows update infrastructure to work around rollback software deficiencies (**Powershell**).
- ◇ Develop streamlined waiting list/alerting webapp and desktop client (**Django**, **wxPython**). Complete major redesign of <https://www.theworkingcentre.org> (**Drupal**).
- ◇ Mentor coworkers and help them solve their issues; patiently helped end-users of all skill levels.
- ◇ Write end-user documentation about viruses and spyware (**Sphinx**). See: <https://theworkingcentre.github.io/win7-avoid-viruses/>
- ◇ Maintain phone infrastructure (mostly legacy **Norstar** equipment, some **VoIP**, some **Asterisk**).

Sessional Lecturer, University of Waterloo, 2004-2007, 2017-2018

Taught several first-year computer science courses, ranging from ACM CS0 (how to use computer applications) through ACM CS2 (introductory data structures and algorithm analysis). Worked to engage students and improve their experience (for example, by getting login shells changed from `cs` to `tcsh` in computer labs). Some comments:

“Explained work very well. Never hesitated to go over stuff to ensure we understood.”

“I liked the demos, his humour. He was very down to earth and was like an equal. I also appreciated that he took comments after classes and acted on those comments to improve the course for us.”

Class sizes ranged from 20-100 students, and were usually coordinated with teaching assistants and other lecture sections.

Community Volunteering, 2016-2017

Taken on assorted community-oriented tech projects. A few highlights:

- ◇ Migrated <https://kwlug.org> from **Drupal 6** to **Drupal 8**.
- ◇ Implemented search, RSS, newsletters for <https://watcamp.com> (**JavaScript, Python**).
- ◇ Implemented newsletters for <http://ourspectrum.com> (**Python**).
- ◇ Ran “laptop rescue missions”, where volunteers of varying skill levels refurbished donated laptops.

Other Community Involvement

- ◇ 2018: Developed <https://waterlooregionvotes.org> for CivicTech Waterloo Region.
- ◇ 2017: “Surviving Drupal 8 Migrations” for Waterloo Region Drupal User Group.
- ◇ 2015: Delivered “How to Win Proportional Representation” presentation. See <https://youtu.be/hyy2u0CQFg0>.
- ◇ 2018, 2014, 2010: Organized municipal all-candidates meetings: Kitchener Mayor, Wards 9-10, Regional Council.
- ◇ 2011-2012: Ran KW Freeskool courses: [Linux Literacy](#), [Computer Security](#)

User Group Organization

- ◇ 2001-present: [Kitchener-Waterloo Linux User Group](#)
- ◇ 2015-2017: [NetSquared Kitchener-Waterloo](#)
- ◇ 2007-2015: WPIRG Community Garden

User Group Participation

- ◇ 2017-present: [Kitchener-Waterloo Cyber Security Meetup](#)
- ◇ 2008-present: [Waterloo Region Drupal User Group](#)
- ◇ 2008-2017: Waterloo-Wellington IT Professionals

Education

Master of Mathematics

University of Waterloo, 1999-2004. Supervisor: Dale Schuurmans.

Thesis topic: “An Attempt to Automate NP-Hardness Reductions via Second-Order Existential Logic.”

Bachelor of Science

University of Toronto at Mississauga, 1995-1999

Honours B.Sc with High Distinction. Major: Computer Science. Minors: Mathematics, English.