Rob Fors

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EDUCATION

Engineering Systems & Computing
    University of Guelph – Guelph, ON

TECHNICAL SKILLS

Programming

- Ruby
  - Preferred language
  - Often used for automating monotonous tasks, such as organizing emails and files
  - Used for developing website backends
- C
  - linked lists, pointers, strucks, stacks, trees, gdb
- C++
  - Multiplayer checkers game (http server, web GUI)
  - Teamed up to make a multiplayer 3D computer game
- Python
  - Developed a website to search and remember favorite articles from The New York Times
- Web Development
  - CSS, HTML5, JavaScript, SEO standards
  - robfors.com, excitechnic.com
  - ESRuby: a framework that gets Ruby code running in the browser

Server Administration

- 8 years of experience working with Linux systems
- Experience with: Bind9, Postfix, Dovecot, Apache, Lighttpd, nginx, OpenVPN, VirtualBox, Asterisk
- TCP, UDP, IP, ARP

Computer Hardware

- Built many desktop and server computers, taking advantage of virtualization to keep hardware costs down when I can

Security Analysis

- Tools used: airodump-ng, coWPAtty, cain & abel, wireshark, wifi honeypot, reaver

<u>Computer Engineering</u>
- SolidWorks (modelling, animation)
  • Deigned a 3D printed toy duck in a group project (animation available at excitechnic.com)
- Communication protocols including: SPI, TTL/serial, I^{2}C
- µC/OS real-time operating system
- ARM assembly language
- Control Theory
  • Built a controller for a Maglev system
- Arduino Microcontroller
  • Library for communication with Xantrex Grid Tie Solar Inverters
  • Electronic door lock
  • Nut sorting machine
  • Remote controlled snow plow

WORK EXPERIENCE
- Microfit solar installation
  • Assisted installation of multiple 10KW solar power projects
  • Developed and implemented solar data acquisition system
- Litens Automotive (Summer 2014)
  • Worked as part of a team to migrate documents from an obsolete database to a CompliantPro database.
  • Developed a Ruby library to streamline the task of document migration. It abstracted a lot of the functionality of the web based document manager, CompliantPro. This allowed a Ruby script to modify a large quantity of documents without constant user interaction.
  • Developed an inventory form for an SQL database
  • Made JavaScript tools to improve the CompliantPro user experience
- Landscaper (Summer 2015, 2016)
  • Maintained a large property
    Worked independently cutting and trimming grass, planting trees, maintaining equipment
- King Day Camp (Summer 2017)
  • Mountain Bike Instructor: Introduced kids to the sport of mountain biking.
  • Mentoring and teaching new skills and supervising them on bike trails.
- Presently developing an innovative web stack to build user friendly web services. I am using this stack to create a startup company selling domains.

HOBBIES
- Cycling
  • Completed a few multi-day tours including a recent ride to Michigan.
  • Complete regular 200km endurance rides to Parry Sound.
- Skiing
  • Expert skier, enjoy hitting the slopes every weekend and head out west once a year.