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1 —
2 bio:
3   name: Katie Lin
4   github: @kqct
5   email: conductor@railway.cat
6   website: https://railway.cat
7 location:
8   - Montréal, Québec, CAN
9   - Westford, Massachusetts, USA
10 summary: >
11   Katie is a passionate computer-talker who takes pride in ensuring that all
... infrastructure is functional and well-maintained, both visible and invisible.
12   She loves collaborating with others to make these dreams a reality.
13 —
14 education:
15   - title: McGill University
16     location: Montréal, QC, CAN
17     when: 2020-08 -- 2024-05
18     degree: B.A. Computer Science, minor Linguistics, minor Music
19     cgpa: 3.88
20     selected-coursework:
21       - Compiler Design
22       - Concurrent Programming
23       - Database Systems
24       - Operating Systems
25       - Language-based Security
26
27 experience:
28   - company: Charm Sciences, Inc.
29     department: Research and Development
30     location: Andover, MA, USA
31     position: Software Engineering Intern
32     when: 2021-05 -- 2021-12
33     accomplished:
34       - Migrated project codebase from Subversion to Git
35       - Performed image and text recognition in low light using TensorFlow's C++ API and
... C#/C++ interop
36       - Created imaging process for prototype machines optimizing performance and disk
... space on Raspberry Pi CM4
37       - Adapted legacy C codebase to use object-oriented paradigms in C#
38       - Researched and implemented cross-platform UI technologies to replace WinForms on
... Linux
39
40   - company: McGill University
41     department: DDMAL, Schulich School of Music
42     location: Montréal, QC, CAN
43     position: Casual Research Assistant
44     when: 2022-05 -- 2024-04
45     accomplished:
46       - Used Ansible to deploy and maintain machine configurations and user accounts on
... Mac and Linux machines
47       - Wrote and optimized Dockerfiles in order to reduce build times and deploy new
... services
48       - Used the Digital Resource Alliance of Canada's OpenStack instance to manage
... security policy, storage, and virtual machine needs
49       - Consolidated and containerized workloads from old virtual machines to reduce
... threat exposure
50       - Worked with university to maintain bastion SSH host through firewall changes
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51
52 activities:
53   - organization: McGill Science Computer Taskforce
54     when: 2020-10 -- present
55     position: Administrative Coordinator
56     accomplished:
57       - Deployed and updated Kubernetesized applications in a GitOps framework
58       - Created and documented Windows image deployment process
59       - Mitigated effect of CVEs by maintaining and updating old servers and applications
... to modern versions of Linux and PHP
60
61 projects:
62   - what: COMP 400 Independent Study
63     title: "MLEgg: Applying Equality Saturation to LLVM"
64     when: 2023-12 -- 2024-05
65     supervisor: Christophe Dubach
66     accomplished:
67       - Wrote an LLVM pass in C++ that called Rust code to run optimizations
68       - Conferred with colleagues to find additional applications for project
69       - Provided proof-of-concept as part of paper, leading to further work done by other
... lab members
70
71   - what: Homelab Services
72     when: 2017 -- present
73     accomplished:
74       - Ran a series of Dockerized services across a diverse array of hardware and host
... software
75       - Networked Docker hosts together using Tailscale and WireGuard to allow for secure
... inter-location communication
76       - Ran Proxmox-hosted virtual machines to more efficiently spread resources and
... separate critical services
77       - Used Terraform and Nix to control state of machines with IaC philosophy, allowing
... for automatic self-documentation and deployment
78
79 certifications:
80   - title: Oracle Certified Assistant 1Z0-808
81     obtained: 2019-07-02
82
83 skills:
84   languages:
85     - language: english
86       proficiency: native
87     - language: mandarin chinese
88       proficiency: native
89     - language: french
90       proficiency: intermediate (B2)
91   technical:
92     languages:
93       - Python, C, Java, YAML, Nix, Bash, JavaScript, PowerShell, Scheme, Rust, R, Swift
94     software:
95       - Docker, Ansible, Terraform, Proxmox, OpenStack, Vim, Emacs, SQL (PostgreSQL,
... MySQL/MariaDB, DB2, SQLite), Kubernetes
96     technologies:
97       - Linux, AWS, Azure, Oracle Cloud, LLVM, Windows Server, OPNSense, OpenWRT,
... FOG/iPXE, AD/LDAP
98
99 notes:
100   - References available on request.
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