

Bheesham Persaud

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Skills

Systems Administration GNU/Linux (CentOS, Ubuntu), Docker, ZooKeeper, Buildbot, SSH
Development C, C++, C#, Rust, Clojure, Python, PHP, HTML/CSS/JavaScript
Collaboration IRC, Git, Atlassian Jira & Confluence

Employment

- CENX, *Software Developer*** 05/2016 - Present
Developed OSS and LSO solutions for telecommunication companies using Clojure, Datomic, Cassandra, Kafka, and Solr.
Improved tools that help emulate a customer's production environment on a developer's laptop using Docker.
- Shared Services Canada, *Developer / Analyst*** 04/2015 - 01/2016
Optimized programs that monitor the health and usage of large networks by reducing disk I/O and redundant steps.
Created intranet websites which generate reports about network outages and changes.
- Carleton University, *Research Assistant*** 05/2013 - 12/2014
Researched gesture based authentication for Android and iOS.
Ported complex algorithms written in JavaScript to C/ C++ for use with the Java Native Interface.
Researched increasing software diversity by creating permutations of the OpenSSL library by using its forks: BoringSSL and LibreSSL.
- Carleton Computer Science Society, *Director At Large: Services*** 05/2012 - 05/2014
Upgraded and maintained the different services the society ran on their Ubuntu servers: DNS, HTTP.
- Canadian Association of Physicists, *Web Developer*** 01/2012 - 04/2013
Maintained the Drupal website along with its many plugins and the Members only area.
Fixed security flaws in legacy PHP and ASP systems.
Created new services to manage the release of magazines on a quarterly basis using CodeIgniter (PHP).

Open-source Contributions

- Redox, <https://www.redox-os.org>**
Contributed a patch which allowed the operating system to run on the x86-64 architecture.
- xbps, <http://www.voidlinux.eu/>**
Improved documentation for xbps, the package manager of the Void (Linux) distribution.
- The Rust Programming Language, <http://rust-lang.org/>**
Submitted minor improvements to the project's build scripts and documentation.
- The Rust Project's Buildbot, <http://buildbot.rust-lang.org/>**
Configured Buildbot to sign all release builds automatically and added basic authentication to the instance.

Academics

- Carleton University** 09/2011 - 02/2017
Bachelor of Computer Science: Computer & Internet Security Stream, Honours
Thesis: FrankenSSL: Recombining Cryptographic Libraries to Create Software Variants
Supervisor: Anil Somayaji

Publications

- 08/2016
B. Persaud, B. Obada-Obieh, N. Mansourzadeh, A. Moni, and A. Somayaji. FrankenSSL: Recombining Cryptographic Libraries for Software Diversity. *Proceedings of the 11th Annual Symposium On Information Assurance.*