

Bheesham Persaud

me@bheesham.com • (613) 612 - 5847 • *Waterloo, Canada*

Backend developer looking to solve challenges related to managing large systems.

Employment

- Auvik Networks, *Software Developer*** 10/2017 - Present
Created and improved tools to aid in implementing and managing infrastructure as code.
Implemented authentication and authorization best practices for Auvik's cloud infrastructure.
Implemented Continuous Integration and Continuous Delivery for several projects.
Improved Auvik's support for getting information from network elements.
Technologies: Scala, Python, Amazon Web Services, Kubernetes, Kops, Terraform, Docker, InfluxDB.
- CENX (acquired by Ericsson), *Software Developer*** 05/2016 - 09/2017
Analyzed and improved alarm-site relationships from live alarm feeds.
Added support for multiple sources of authentication and authorization to the core application.
Improved relationships in the network map between network elements.
Improved the deployment story for new components in our technology stack.
Improved the development and testing workflow by emulating the production environment.
Technologies: Clojure, ZooKeeper, Kafka, WildFly (JBoss), Datomic, PostgreSQL, RethinkDB, Docker.
- Shared Services Canada, *Developer / Analyst*** 04/2015 - 01/2016
Optimized programs that monitor the health and usage of large networks.
Created intranet websites which generate reports about network outages and changes.
Technologies: Solaris 10, C#, JavaScript, Perl 5, SNMP, SAS, Microsoft SQL Server.
- Carleton University, *Research Assistant*** 05/2013 - 12/2014
Researched methods to increase software diversity by creating permutations of the OpenSSL library.
Researched and implemented gesture based authentication for Android and iOS.
Technologies: Java, Objective-C, JavaScript, Python, PHP, C/ C++ , OpenSSL, L^AT_EX, libvirt.
- Carleton Computer Science Society, *Director At Large: Services*** 05/2012 - 05/2014
Maintained a variety of services the society ran, such as website, DNS, and forum.
Technologies: Ubuntu Server, NGINX, PowerDNS, Python, Plone.
- Canadian Association of Physicists, *Webmaster*** 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.
Technologies: ASP.Net, PHP, Kohana, CodeIgniter, jQuery, JavaScript, Drupal, Moneris.

Open-source Contributions

- The Rust Programming Language, <https://rust-lang.org/>**
Improved the project's build scripts and documentation.
<https://github.com/rust-lang/rust/commits?author=bheesham>
Improved the security of Rust's Continuous Integration infrastructure.
<https://github.com/rust-lang-deprecated/rust-buildbot/commits?author=bheesham>

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: Dr. 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.*