

# Tahsin Zulkarnine

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## Profile

- Certified Cloud Architect: Salesforce (Application), AWS (Solution - Associate)
- Languages: Apex (Skilled), PHP, Java, JavaScript (Proficient), C++, .NET (Prior Experience)

## Experience

*Groundswell Cloud Solutions, Vancouver, British Columbia, Canada*

**Feb 2017 - Present**

### Technical Architect

Jan 2020 - Present

### Technical Lead

Jan 2019 – Dec 2019

- Provided technical leadership in overall development strategy and process for a global direct selling cosmetics company containing 70+ developers across 7+ global teams, comprising of architects, developers, DevOps, QA and platform specialists, by defining standards and policies in a centralized knowledge base for stakeholders to reference covering developer training, IDE setup, modular repository structure for SFDX deployments, code review from the manual checklist, static code analysis and naming conventions.
- Led and architected the design of a core cloud (Salesforce) data model to accumulate data from around 14 front offices and 5 Business Intelligence legacy systems of 34 countries located in 5 continents into a single data source for the global cosmetics company by analyzing requirements with the stakeholders, identifying generic fields from these legacy systems and providing accurate source to target mapping.
- Designed and provided strategic direction for code architecture for the global cosmetics company utilizing hybrid separation of concern (SoC) design pattern by enhancing the selector layer of the FFLIB library to include additional filtering functionalities and including a trigger framework to turn on/off activities using configurations after certain DML operations.
- Contributed to the open source Enterprise design pattern framework Financial Force Library (FFLIB) used globally in thousands of Apex development projects by enhancing the default sorting of records considering invalid fields and shield encryption, going through rigorous code reviews and debates with the domain experts.
- Established data governance process for the direct selling cosmetics company operating globally comprising of 7+ global teams to streamline core data model changes by introducing architectural review process, Hungarian notation and an aging process of obsolete fields referenced in the applications.
- Defined the platform encryption approach for the core data model to protect Personally Identifiable Information (PII) of distributors, customers and consumers for the global cosmetics company utilizing deterministic and probabilistic algorithms in a Salesforce shield.
- Led technical discussions and gained consensus from multiple stakeholders including client architects, Salesforce product architects, Salesforce R&D and the Perf & Scale team for adopting an enhanced data visibility and sharing approach utilizing data sharing rules and account relationship, which reduced ~50% of custom development by conducting experiments, analyzing and estimating the scale of data volume globally in 14 front offices in 5 continents through complex database queries.

### Senior Technical Consultant

Feb 2017 – Dec 2018

- Acted as Subject Matter Expert (SME) and architected a data visibility and security engine for the global direct selling cosmetics company having 3.5 million distributors organized in a complex unit and unit tree hierarchy based on 6 major career levels, accurately surfacing their down-line information containing personal, production, earning and commission data in Salesforce Customer Community, utilizing advanced sharing strategies including sharing sets, public groups and apex based sharing.

- Led and architected a custom Apex-based hierarchical sharing and security engine to accurately provide access to 1.3M distributors of Shaklee, a pioneer direct-selling nutrition company, to their downline data based on complex business rules utilizing every possible asynchronous Apex capability, custom separation-of-concerns Apex code framework, and extensive optimization of queries and processing logic including skinny tables, custom indexes, and carefully optimized Apex code.
- Led and architected a cross-cloud lineage solution to provide visibility to 2.3M distributors of another prominent direct selling nutrition company to their lineage and contact list, having capability of tagging and geolocation in Salesforce platform utilizing fine tuned data modelling, extensive optimization of queries including skinny tables and custom indexes, payload analysis and integration with on premise systems (MDM) using APIs, custom separation-of-concerns Apex code framework and carefully optimized Apex code.

*International Cyber Crime Research Centre, Vancouver, British Columbia, Canada*

**Senior Software Engineer**

Sep 2015 – Jan 2017

- Developed interfaces and reduced keyword search time by ~90% by implementing the full text search engine Sphinx for a web application (front end of a refactored web crawler) which enabled capture and analysis of violent extremist content present in the dark web (Tor network).

*BasicGov Systems Inc., Vancouver, British Columbia, Canada*

**Senior Software Developer**

Jul 2014 – Aug 2015

- Designed generic Cart and Payment Processing Framework in cloud (Salesforce) which reduced custom development time by ~50% for state government agencies when integrating with payment gateways to process payment. Implemented in: Minnesota, Elgin IL, DPS Massachusetts.
- Developed and stabilized an enhanced Letter engine which extracted state government’s cloud data, prepared printable letters in AWS infrastructure and stored in the cloud (Salesforce).

**Multiple Software Development Positions**

Sep 2006 – Jun 2014

**Education**

**M.Sc. in Computer Science (Software Architecture)**

Jun 2010 – Jun 2012

*University of Lethbridge, Alberta, Canada*

**B.Sc. in Computer Science and Information Technology**

Dec 2002 – Aug 2006

*Islamic University of Technology, Dhaka, Bangladesh*

**Certifications**

**AWS Certified Solution Architect Associate**

Sep 2019

**Salesforce Certified Application Architect**

Jul 2019

**6x Salesforce Certifications**

Jul 2017 – Jul 2019

*Including Data Architecture and Management Designer, Sharing and Visibility Designer, Community Cloud Consultant, Administrator, App Builder and Platform Developer 1*

**Speaker/Publications**

- **“Large Scale Community Cloud Implementation with Advanced Sharing and Security”**, CactusForce Conference 2020, to be held at Phoenix, AZ, USA
- **“Design structure of scientific software - a case study”**, 13th International DSM Conference, 2011, held at Massachusetts Institute of Technology (MIT), USA.
- **“Surfacing collaborated networks in dark web to find illicit and criminal content”**, Intelligence and Security Informatics (ISI), 2016 IEEE Conference