

Crystal Hansen

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Professional Profile

Experienced **Full-Stack Developer** with over **18 years** in web and application development, data analysis, system integrations, and migrations. Adept at building and maintaining scalable, high-performance applications in **Angular and JavaScript frameworks, Java, Python, Flask, .NET, C#, Drupal, PHP**. Passionate about **problem-solving, automation, and optimizing system performance**. Extensive experience in API integrations, database architecture, and secure web infrastructure.

Technical Skills

- **Programming Languages:** Java, Node.js, Python, PHP, .NET (C#, VB)
- **Web Development:** Angular.js/Angular 2/Drupal/PHP, HTML5, CSS3, Bootstrap,
- **Backend & APIs:** WebAPI, Spring Boot, JDBC, RESTful APIs, SOAP
- **Database Management:** MySQL, PostgreSQL, SQL Server, MariaDB, SAS EG
- **Content Management & Migrations:** Drupal, Wordpress, custom modules, SEO file optimizations, Google Search Console, GTM, LinkedIn/Google ads
- **Mobile Development:** iPhone development, (Swift, Objective-C)
- **Server & Deployment:** Tomcat, Catalina, Apache, Nginx, Docker, Ubuntu, Unix, Linux
- **Security & Optimization:** DKIM, SPF, OAuth, Basic Authentication, Role Base Access
- **Version Control & CI/CD:** Git, GitHub, GitLab, TFS, Drush, Composer, Agile methodologies

Experience

FOUNDER, DEVELOPER, CRYSTAL HANSEN ARTOGRAPHIC; CANADA 2013-Present

Personal Projects & Self-Initiated SaaS Applications (2019 – 2021, 2025)

Consistently developed projects to stay current with modern web, backend, cloud and AI technologies.

Current work - March 2025 - present

- **AI/NLP Chatbot SaaS** – Developed a micro-service chatbot using **Spring Boot, Spring MVC, OpenAI GPT API**, and **AWS EC2** deployment. Focused on emotional support and custom fortune-telling prompts. fortune.ai (Oribie) available at pinmento.com web based.- tba mobile v2. Happy2Be.ai web based - tba mobile v2 (March - April 2025)
- **Data Trend Generator** Python sales generation tool designed to mimic current sales trends in photography for mock data used in dashboard example at <https://artog.co/user/1/dashboard> v1, tba - mobile v2
- Deployment of applications built from 2019-2021 into cloud platforms. AWS/Google Cloud

Past Work: Sept 2019-Feb 2021

- **Studio Booking & Rentals SaaS** – Designed and implemented a cloud-based application for managing studio bookings, rentals, and calendar views using **Angular (TypeScript v2+), Java, Spring / Spring Boot**, and **Hibernate**. (Sept 2019 – Mar 2021)

- **Gallery & Portfolio Platform** – Built user-facing features for selling photo prints, showcasing work, and collecting client reviews. Tech stack: **Angular, Java, Spring Boot, Hibernate**. (Sept 2019 – Mar 2021)
- **Dynamic Gallery Display** – Created masonry layouts for image galleries with **lazy loading**, using **vanilla JavaScript** and **Java, Spring** for the backend. (Sept 2019 – Mar 2021)
- **Data Analysis Tool** – Built a screen scraping and analysis tool for extracting industry data to support marketing decisions using **Python, MySQL**, and **BeautifulSoup**. (Sept 2019 – Mar 2021)

WEB DEVELOPER (FULL-STACK), PGSTECH; — March 3, 2021 - April 4 2025 | Montreal, QC

- Developed and maintained **empt.com** (PHP) with optimized performance and security.
- Coded HubSpot and Website **data migrations & SEO optimizations**, ensuring URL consistency and file naming standardization.
- Stack Technologies used: HTML/CSS3/Javascript PHP/Mysql, Composer, Drush, Docker, Form testing
- Integrated **HubSpot APIs, Brevo API, PayPal gateway** using PHP within a Drupal framework for automated lead management coupled with forms and email marketing, deals and sales.
- Built **custom modules** for file handling, ratings, and email subscriptions.
- Optimized website **PHP/Drupal API performance**, resolved caching issues, and implemented **security best practices**.

Key Projects:

- **Star Rating System:** Migrated PHP-based ratings into structured Drupal.
- **CRM Migration:** Designed and executed HubSpot data migration workflows.
- **Drupal CMS Migration:** Designed and executed website data migration content types and custom module integrations.
- **Brevo API Integration:** email marketing campaigns with API automation.
- **In-App Advertising API:** Developed secure EMTP-based monetization tools.

**CANADIAN WESTERN BANK Dec 4 2011 – 2019 | EDMONTON, AB
Manager, IT Risk (2018 – 2019)**

- Developed credit risk models and scorecard **applications** using **Java**
- **Built Java applications** using JSP, Struts, JavaScript, AJAX, SAS backend
- Designed Bug/Developer ask tracking system JSP, Spring, Hybernate
- Developed one-page UI forms for scorecards (HTML, CSS3, Javascript)
- Worked directly on backend (JDBC, SQL) and frontend (JavaScript, AJAX)

IT Risk Analyst (2016 – 2018) — Java Developer

- **Designed real-time financial data pipelines for risk analysis and forecasting.**
- **Built risk assessment applications** using **Java, SQL**, and **REST APIs**.

- Developed data analysis and model validation for regulatory compliance.
- **Built Java applications** using JSP, Struts, JavaScript, AJAX, SAS backend
- **Scorecard Systems:** Engineered **quantitative and qualitative scorecard applications**, integrating automated risk rating logic and real-time data processing.
- **Backend Development:** Developed and optimized **JDBC-based SQL queries** for **Oracle/MySQL**, ensuring efficient data retrieval and storage.

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- **Task & Bug Tracking System:** Built a **custom task tracking system** in **Java (non-Struts JSP)** with a **parent-child** structure for seamless workflow management following Agile methodologies.
- **Front-End Development:** Designed **AJAX-driven, single-page data entry forms** for streamlined user experience and faster data input.
- **Testing & Debugging:** Conducted unit testing, performance tuning, and troubleshooting to ensure application stability and efficiency.
- Nominee Pillar Award Q3 Achievement Awards, Canadian Western Bank - 2017

Application Developer II (2013 – 2016)

- Developed various **Java & .Net** tools to support financial migrations **ETL** processes, **Multi-threading**, transactional log processing tools.
- Develop **SQL SSIS** Testing and deployments for a Temenos T24 banking system migration, optimizing SQL for go-live processing.
- **Transformations** created using SSIS .NET tools to transform Accounts, Terms, Transactional Data types in new T24 Standards

Education

Northern Alberta Institute of Technology, Edmonton AB — **Computer Systems Technology**, 2009
University of Saskatchewan, Saskatoon, SK - **BA**, 2002-2005

Reference:

Jean Mahseredjian, President PGSTech, jean@empt.com +1 514 237 8289.