

Crystal Hansen

Professional Profile

Full-Stack Developer with **18+ years** of experience building scalable web applications, APIs, and data-driven systems using **Angular, React, Java, Python, and PHP**. Skilled in integrations, migrations, **DevOps**, and **performance** optimization across **enterprise** and **cloud platforms**. Continuously **upskilling** through **freelance** and **self-initiated** projects to stay current with modern frameworks and development best practices.

Technical Skills

- **Programming Languages:** Java, Node.js, Python, PHP, .NET (C#, VB)
- **Web Development:** Angular / React / TypeScript / JSX / HTML5, CSS3, JS, BS5
- **Backend & APIs:** Drupal/PHP, 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
- **Server & Deployment:** Tomcat, Catalina, Apache, Nginx, Docker, Ubuntu, Unix, Linux
- **DevOps & CI/CD:** Git, GitHub, GitLab, Jenkins, GitHub Actions, TFS, Drush, Composer, CI/CD pipelines, Agile methodologies
- **Cloud Platforms:** AWS, Azure, GCP
- **Security & Optimization:** DKIM, SPF, OAuth, Basic Authentication, Role-Based Access Control (RBAC)

Experience

FREELANCE DEVELOPER, Self-employed | Remote | April 2025 - Present

Built and maintained client websites, applications, and internal tools independently. Specialized in full-stack development (**Angular, React, Node.js, Spring Boot, PHP**) with **DevOps** and deployment experience. Integrated complex systems including calendar booking, real-time availability, PDF generation, SEO, and e-commerce tools.

Client Project: Zackly Rite Massage Therapy - Esterhazy, SK

React SPA + PHP API | Production | Paid Client Work

- Developed a modular single-page booking app integrating **RESTful** APIs, calendar availability, PDF/email confirmations, reCAPTCHA, and SEO using React Helmet.
- CI/CD pipeline for deployment on AWS & shared hosting.
- Visit: zackly-rite.ca | GitHub: [zackly-rite-spa](#) , [PHP-API](#), [Bookit](#)

Founder & Independent Projects *Various Startup Prototypes | Ongoing*

Studio Booker — Angular 17, FullCalendar, html2pdf, localStorage, Store

- Built a studio management **SPA** with scheduling, rentals, PDF invoices, and calendar views using **Angular 18** standalone components and **reactive forms**.
- Demo: booker.crystalhansenartographic.com | GitHub: [studio booker](#)

Crystal Hansen Artographic — React (Vite), Node.js, Express, PHP API

- Full-stack portfolio and storefront with dynamic image galleries, studio scheduler, automated **SEO** via **React Helmet** and **.htaccess** routing.
- Included cron-based data automation, backend maintenance, and CI/CD pipelines.
- Visit: crystalhansenartographic.com | GitHub: [chartcom](#) , [PHP-API](#)

Oribie AI (Fortune.ai Chatbot SaaS) — Spring Boot, OpenAI GPT, AWS EC2

- Developed a **microservice**-based chatbot API for fortune prompt and custom prompt workflows. Integrated API with scalable deployment via AWS.
- Live Demo: pinmento.com (bottom-right widget) | GitHub: [fortune-ai](#)

Data Trend Generator — *Python, Flask, Drupal Cron PHP* | deployed

- Created a mock sales data generation tool for a [dashboard](#) simulating photography trends.
- Github: [user_profile_account](#) , Python [flask-generate-sales](#)

Bookit App Platform (Legacy Revamp) — *Angular 17, Spring Boot, Java APIs*

- Migrated and consolidated legacy booking systems into a unified Spring Boot platform with REST endpoints and cloud deployment (AWS/GCP) [AWS](#). Github: [Bookit](#)

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.
- **Processes** implemented deployment pipelines, monitoring, infrastructure.
- 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. [Drupal Star Rating](#)
- **CRM Migration:** Designed and executed HubSpot data migration, licensing api integrations and workflows. Visit: [Hubspot Migration](#)
- **Drupal CMS Migration:** Designed and executed website data migration content types and custom module integrations. Visit [empt-drupal](#)
- **Brevo API Integration:** email marketing campaigns with API automation.
- **In-App Advertising API:** Developed secure EMT-P based monetization tools. See a public example: [PHP-API](#)

FREELANCE DEVELOPER Freelance Projects & Startup Applications (2019 – 2021)

Consistently built and deployed full-stack applications to stay current with evolving technologies and frameworks, with a focus on **Angular, Spring Boot**, and **Python**.

Studio Booking & Rentals SaaS — Angular 2+, Spring Boot, Java, Hibernate

- Developed a cloud-based booking and rental management platform featuring interactive calendar views, custom scheduling workflows, and form-driven interfaces.
- Built as a standalone **Angular 2, SPA** with a **Spring Boot, REST API** backend.
- **Role:** Full-stack developer (frontend, backend, deployment) Visit Github: [studio Calendar](#)

Gallery & Portfolio Platform – Angular 2+, Java, Spring Boot, Hibernate

- Built user-facing features for selling photo prints, showcasing work, and collecting client reviews. Created masonry layouts for image galleries with **lazy loading**, Github: [gallery-loader](#)

Data Analysis Tool – Python, MySQL, and BeautifulSoup

- Built a screen scraping and analysis tool for extracting industry data to support marketing decisions using. Github: [python](#)

CANADIAN WESTERN BANK Dec 4 2011 – 2019 | EDMONTON, AB

Manager, IT Risk (2018 – 2019) — Java Developer

- Developed credit risk models and scorecard **applications** using **Java**
- **Built Java applications** using **Angular, TypeScript, JSP, Struts, AJAX, SAS API**
- **Task & Bug Tracking System:** Built a **custom task tracking system** in **Java Angular** with a **parent-child** structure for seamless workflow management following Agile and ITIL methodologies.
- Developed one-page UI/UX forms for scorecards Angular and Typescript
- **Testing & Debugging:** Conducted unit testing, performance tuning, and troubleshooting to ensure application stability and efficiency.
- Containerizations using Docker, Anaconda and GCP;
- **Impact** (speeding up deployments, reducing downtime, improving team collaboration)

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 collection and **model validation** for regulatory compliance.
- **Built Java applications** using **Angular, TypeScript, JSP, Struts, AJAX, SAS API**
- **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,SAS**, ensuring efficient data retrieval and storage.
- **Task & Bug Tracking System:** Built a **custom task tracking system** in **Java Angular** with a **parent-child** structure for seamless workflow management following Agile and ITIL practices.
- **Front-End Development:** Designed UI/UX **SPA, Angular, TypeScript** 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
- **Tools** used (CI/CD, version control, automation), GIT, TFS,

Education

Northern Alberta Institute of Technology, Edmonton AB — **Computer Systems Technology**, 2009

University of Saskatchewan, Saskatoon, SK - **BA**, 2002-2005

Reference:

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