

## ***SUMMARY***

28 years of Software Development experience, with significant expertise in backend development and AWS-based systems, particularly within FinTech and GeoSpatial industries. Proven experience as a Senior Software Architect, capable of defining architectural requirements and facilitating efficient data processing. Highly proficient in data architecture, Cloud Technologies (AWS), ETL processes, and data governance.

## ***EXPERIENCE***

### **Sr. Software Architect, Backend, DevOps**

**2015 – 2023**

*Sparkgeo*, BC, Canada

- Designed and implemented fault-tolerant, scalable backend systems on AWS, supporting high availability for mission-critical geospatial applications.
- Spearheaded the cloud migration for Maptiks, achieving a 75% reduction in infrastructure costs while improving throughput by 120x.
- Developed custom APIs and data processing pipelines for handling high-volume geospatial data from multiple sources, ensuring accuracy and performance.
- Collaborated across teams to develop Maptiks 3.0, including a React-based frontend and ELK stack backend, reducing ingestion costs and enabling enterprise-grade on-premise solutions.
- Created an air-gapped version of Maptiks for secure, offline deployment, tailored to military use cases.
- Led cross-functional teams to develop a real-time ship detection system, leveraging AIS and satellite data to improve global maritime security.
- Mentored junior engineers, fostering skill development and knowledge sharing within the team.

### **Sr. Software Engineer, Backend**

**2005 – 2015**

*TD Ameritrade (Investools)*, NJ, USA

- Designed and maintained a custom ETL system to process terabytes of financial data daily, managing 200+ interdependent workflows with precise scheduling.
- Built scalable solutions for ingesting data from diverse sources, including APIs, FTP servers, and third-party providers like Thomson Reuters and Morningstar.
- Delivered advanced financial analytics tools, including real-time indicators like Greeks, Black-Scholes, and technical analysis (MACD, moving averages, stochastics).
- Developed the "ProSearch" feature, enabling users to perform custom scans for price breakouts, earnings, and other financial triggers.
- Partnered with business analysts and data scientists to define technical requirements and align system outputs with business objectives.
- Conducted system performance optimizations, improving data pipeline efficiency and reliability for user-facing applications.

# ALAIN J ST PIERRE

Cumberland, BC V0R 1S0

(778) 838-4277

alain@alainstpierre.com

- Provided ongoing ETL support, including on-call troubleshooting, to ensure uninterrupted data processing for financial systems.

## President, Founder

2022 – Present

*STA Capital Corp, BC, Canada*

- Specialized in providing tailored capital solutions to real estate investors and developers, addressing unique market demands and investment goals
- Offer financing options tailored to the unique needs of each client
- Dedicated to assisting clients in securing the necessary capital for expanding their real estate portfolios and projects.
- Demonstrated proficiency in handling a variety of real estate asset classes, catering to a broad spectrum of investment strategies.
- Focus on building long-term relationships with clients, providing ongoing support and guidance as their financing needs evolve.

## SELECT PROJECTS

**Maptiks (2.0 & 3.0):** Spearheaded web map analytics platform development, enabling integration with Mapbox, Google Maps, and Esri. Delivered air-gapped, on-premise solutions for military clients and achieved cost and performance optimization through ELK stack migration.

**Global Maritime Security:** Built a real-time AIS data processing system, contributing to tracking illegal activities like human trafficking and improving global security.

**Custom ETL Solution:** Developed TD Ameritrade's ETL system to process financial data across diverse security types, empowering users with real-time analytics and alerts.

## TECHNICAL SKILLS

**Leadership & System Design:** Scalable Architecture, Fault-Tolerant Systems, ETL, Cloud Migrations, Cost Optimization

**Cloud Platforms:** AWS (Lambda, S3, EC2, RDS, Redshift, Glue), ArcGIS

**Backend Development:** Python, Java, Django, Django Rest Framework, Sanic

**Frontend Development:** React, NextJS, AngularJS, TypeScript, TailwindCSS

**DevOps & Automation:** Docker, Terraform, CI/CD (GitHub Actions, CircleCI, GitLab)

**Data Engineering:** SQL, Data Modeling, Governance, Elasticsearch, ELK Stack

## EDUCATION

**Exempt Market Proficiency Course**

2023

*Investment Funds Institute of Canada, ifse.ca*

**AWS Certified Solutions Architect - Associate**

2022

*Amazon Web Services (AWS), aws.certification*

**Bachelor of Computer Science w/ Distinction (Fac. Engineering)**

2002 – 2005

*University of Victoria, Victoria, BC*