

CLAUDE BRISSON

SOFTWARE & DATABASE ARCHITECT – STAFF SOFTWARE ENGINEER – APPLIED MATHEMATICS

CTO-level software and database architect. Designs, codes, delivers.

LOCATION
Marseille, France

CONTACT
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WEB
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SKILLS

Technical consulting & project management

Project supervision from planning to delivery, on-site or remote. Team leadership, coaching and architecture review.

Software & database design

Software and database architecture from model to production, including storage engine design, micro-services, APIs, and performance optimization.

Agent-augmented development

Intensive practice of human-AI pair coding — knowing when to lead, when to trust, how to impose a constructive rhythm and maintain an architectural coherence.

Algorithm engineering & data

Applied mathematics for data science, signal and image processing, machine learning, and LLMs. Constraint solving and numerical methods.

LANGUAGES, PLATFORMS & TOOLS

Java / Kotlin Multiplatform Rust / C++
SQL Python
Web (JS / HTML / CSS / WASM) GNU/Linux
Git Docker

DOMAINS

High-performance DB engines
Query optimization SaaS & web apps
Real-time / embedded Medical
Logistics Media Industrial

LANGUAGES

French – native
English – fluent

EDUCATION

École Centrale Paris

Applied Mathematics Engineer, 1994

Postgraduate Degree in Cognitive Science

CREA, École Polytechnique – 1995 – Artificial vision, wavelet-based image analysis

INTERESTS

Rock climbing
Game of Go
Theatre

PROFILE

Applied maths engineer with 25+ years of industrial software engineering and 15+ years leading technical teams on complex systems. Strong focus on software and database architecture, high-performance data processing, optimization, and long-term maintainability — from design to implementation and delivery without a fuss.

EXPERIENCE

Lead Coder – Query Planner / Optimizer

2023 – 2025

Voltron Data – remote

- Staff engineer then **lead coder** in the query planning and optimization team.
- Designed and helped implement **optimization strategies** for **complex SQL workloads** across **heterogeneous back-ends**.
- Design, review, coordination, and maintenance of high code quality in a **polyglot stack** (Java / C++ / CUDA).
- Applied advanced algorithms and applied maths to **cost models**, rule design, and **plan transformations**.

Senior Software and Database Architect

2001 – present

Various companies and organizations (as consulting engagements or as employee positions)

Performance Logiciel – Pricing software & micro-service framework

2020 – 2022

Nantes (remote) – Kotlin / Java / Web

- Technical lead** and software architect for pricing software and a micro-service framework for carrier data exchange.
- Software architecture coaching, technical leadership, and long-term maintenance.

Ravel Technologies – Encrypted database

2018 – 2021

Paris (remote) – C++ / Java / Kotlin

- Architecture coaching and **SQL engine** elaboration for an **encrypted database** product.
- Close collaboration with computational maths researchers on engine design.

Axonia Partners – Semantic engine / BI solution

2018 – 2019

Paris (remote) – Java / Web

- Technical lead** for a **semantic engine** powering a business intelligence solution.
- Design, implementation, and long-term maintenance.

Robotik Technology – Pharmaceutical robots and software

2016 – 2019

Béthune (remote) – C++ / SQL / Ansible

- Software architecture coaching for pharmaceutical robotics.
- Medical data handling and software asset management tools.

KoDe Software – High-performance database engine

2009 – 2016

Paris (remote) – C++ / SQL

- Technical design and architecture of a **high-performance database engine**.
- Lead developer** then **CTO**, in collaboration with computational maths researchers.

Boxtal – Online shipping platform

2007 – 2012

Paris (remote) – Java / Perl / Web / SQL

- CTO** for an online shipping platform.
- Functional model implementation, recruitment and management of the technical team, and **scaling & monitoring**.

PUBLICATIONS & COMMUNITY

Research

- [\[CIDR - accepted\]](#) Theseus: A Distributed and Scalable GPU-Accelerated Query Processing Platform Optimized for Efficient Data Movement
- [\[arXiv - submitted\]](#) Zero-Cost NDV Estimation from Columnar File Metadata
- [\[arXiv - submitted\]](#) Partial Partial Aggregates

Community

- Contributor to many open source projects (Apache Velocity, Apache Calcite, Ktor, and personal projects).
- Volunteer for the French and European Go Federations (board / IT / Pairing Software).