

Cole Morton

Senior Software Engineer AI-Augmented Development Full-Stack Architecture

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👤 [LinkedIn Profile](#) 🌐 [Personal Website](#) 📄 [GitHub Portfolio](#)

Professional Summary

Senior Software Engineer with 11+ years building production systems across fintech, healthtech, and digital commerce. Expert in AI-augmented development practices, having architected and deployed enterprise-grade content systems processing 18+ financial APIs with institutional-quality outputs. Recently relocated to Brisbane from Berlin, bringing global perspective and modern development approaches to Australia's thriving tech ecosystem.

Core Competencies

- Architected production systems handling 100+ institutional-grade financial analyses
 - Pioneer in AI-orchestration development with 21-command Claude integration system
 - Full-stack expertise across React, TypeScript, Node.js, Python ecosystems
 - Executive-level experience: 5 years autonomous technical decision-making
 - Active GitHub contributor (daily 1+ years): 28,500+ lines of maintained code
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Technical Skills

Current Technologies (2020-Present)

Python 3.10	Astro 5.12+	React 19	TypeScript	TailwindCSS 4	
Pandas 2.0+	NumPy	Plotly	Pytest	Jinja2	Poetry

Frontend Technologies

Astro 5.12+	React 19	TypeScript	TailwindCSS 4	Vue.js	Angular.js
React Native	JavaScript (ES6+)	HTML5	CSS3	SASS	
Styled Components	Redux	Redux-Saga	Storybook	PWA	

Backend Technologies

Python 3.10	Node.js	.NET Stack	Express.js	C#	VB.NET
Pandas 2.0+	NumPy	Plotly	Jinja2	RESTful APIs	WCF
SignalR					

AI & Modern Technologies

Claude AI orchestration	Open Router	AI-driven content generation		
AI-augmented development	Quantitative analysis	Financial modeling	Cursor IDE	
Algorithmic trading systems				

Domain Expertise

Finance & Trading Systems	Data Processing & Visualization	AI-driven content generation
Modern Web Applications	Full-stack architecture	Interactive dashboards
Quantitative trading platforms		

Databases & DevOps

SQL Server	PostgreSQL	Entity Framework	LINQ	MongoDB	Git	
GitHub	GitLab	Poetry	npm	Yarn	Webpack	Jenkins
VSCode						

Testing & Methodologies

Test Driven Development		Agile/Scrum		SOLID principles		Jest	Cypress
Pytest	Karma	Protractor	Unit Testing		End-to-End Testing		Kanban
DRY, KISS, YAGNI		Fail-fast principles					

Professional Experience

Founder & Principal Engineer

Self-Directed Software Development October 2020 - Present Berlin, Germany → Brisbane, Australia

Led executive-level technical initiatives building production-grade financial analysis systems, demonstrating enterprise architecture capabilities typically found in CTO/Principal Engineer roles.

Key Achievements:

- ▶ **Sensylate Platform:** Architected GenContentOps system with sophisticated 21-command AI orchestration, processing financial data into institutional-grade content with 9.2/10 quality metrics
- ▶ **Production Scale:** Generated 100+ fundamental analysis reports meeting institutional standards through automated DASV (Discovery-Analyze-Synthesize-Validate) framework
- ▶ **Technical Leadership:** Made architectural decisions impacting 28,500+ lines of production code across Python and TypeScript, maintaining daily GitHub activity
- ▶ **API Integration:** Designed contract-driven data pipeline integrating 18+ financial APIs with intelligent caching and comprehensive error handling
- ▶ **Quantitative Systems:** Built comprehensive trading analysis toolkit with backtesting, portfolio optimization, and risk management capabilities

Technologies: Python, React 19, TypeScript, Astro 5.7.8, Claude AI, TailwindCSS, Plotly

Senior Software Engineer

Oetker Digital GmbH

July 2018 - October 2020

Berlin, Germany

Delivered multiple high-impact projects in fast-paced product environment, adapting quickly to diverse technology stacks and business requirements.

Key Achievements:

- ▶ **Frontend Architecture:** Led frontend architecture decisions for multi-brand e-commerce platform serving millions of users
- ▶ **GraphQL Migration:** Implemented GraphQL migration reducing API calls by 60% and improving page load times
- ▶ **Technical Mentorship:** Mentored junior developers in React best practices and modern JavaScript patterns
- ▶ **Feature Delivery:** Delivered 15+ production features meeting aggressive deadlines without compromising quality

Technologies: React, Vue.js, TypeScript, GraphQL, Node.js, AWS, Docker

Senior Frontend Developer

Panorama Berlin

March 2018 - June 2018

Berlin, Germany

Led development of innovative mobile-first Progressive Web Application for major fashion events.

Key Achievements:

- ▶ **PWA Architecture:** Architected offline-capable PWA with QR scanning, enhancing attendee experience for 5,000+ users
- ▶ **Service Workers:** Implemented service workers achieving 100% offline functionality for critical features
- ▶ **Open Source Contribution:** Open-sourced Peach UI component library, adopted by 3 internal teams

Technologies: React, Apollo GraphQL, Service Workers, PWA, Mobile-first design

Senior Software Developer

CrossLend GmbH (Fintech)

July 2015 - June 2016

Berlin/Luxembourg

Contributed to core lending platform handling €50M+ in transactions with focus on reliability and performance.

Key Achievements:

- ▶ **Real-time Trading Dashboard:** Developed real-time trading dashboard processing 1,000+ transactions per minute
- ▶ **Test Coverage:** Implemented comprehensive test suite achieving 95% code coverage
- ▶ **CI/CD Optimization:** Reduced deployment time by 70% through CI/CD pipeline optimization

Technologies: React, Redux, Node.js, PostgreSQL, TDD, CI/CD

Software Developer

Charm Health

January 2012 - April 2013

Brisbane, Australia

Built enterprise healthcare solution for Chris O'Brien Lifehouse at Royal Prince Alfred Hospital, Sydney.

Key Achievements:

- ▶ **Patient Management:** Developed patient management modules serving 10,000+ cancer patients
- ▶ **Real-time Synchronization:** Implemented real-time data synchronization using SignalR
- ▶ **System Reliability:** Achieved 99.9% uptime for critical healthcare systems

Technologies: .NET, Silverlight, WCF, SignalR, Entity Framework, SQL Server

Software Developer

ISAC New Zealand Ltd

October 2009 - January 2012

Auckland, New Zealand

Developed commercial freight tracking system for DHL Global Freight and internal time management tools.

Key Achievements:

- ▶ **Door2More System:** Built Door2More freight tracking system processing 50,000+ shipments monthly
- ▶ **Process Automation:** Reduced manual tracking time by 80% through automation
- ▶ **Scalable Architecture:** Designed scalable architecture supporting international expansion

Technologies: ASP.NET MVC, C#, SQL Server, Entity Framework, jQuery

Entrepreneurial Ventures

Independent Software Developer & Personal Web Site

Sensylate Platform · Self-employed

August 2024 - Present · 1+ yrs

Brisbane, Australia · Remote

Advanced AI agent orchestration system organized across four classification tiers (Infrastructure, Feature, Assistant, Sub-agents) with sophisticated multi-phase agentic workflow.

Key Achievements:

- ▶ **Enterprise-Grade GenContentOps:** Sophisticated AI agent orchestration system organized across four classification tiers (Infrastructure, Feature, Assistant, Sub-agents)
- ▶ **Multi-phase agentic workflow (DASVP):** Features are content pipelines based on Discovery-Analyze-Synthesize-Validate-Publish framework integrating 20+ financial and economic APIs
- ▶ **Institutional-Grade Content Generation:** Generated 100+ deep fundamental, financial, and economic analysis spanning companies, industries, stocks, and economics
- ▶ **Contract-Driven Data Pipeline:** Advanced architectural patterns enable automatic service discovery and orchestration, with intelligent template selection and multi-engine content generation

Technologies: Python 3.10, TypeScript, Astro 5.12+, React 19, TailwindCSS 4, Pandas 2.0+, NumPy, Plotly, Pytest, Jinja2, Anthropic Claude Code, Open Router, Cursor **Project:** [GitHub Repository](#)

Quantitative Trading Systems Architect

Quantitative Analysis Suite · Self-employed

Dec 2022 - Present · 3 yrs

Berlin, Germany · Remote

Comprehensive quantitative analysis toolkit for trading strategies and portfolio management with advanced risk analytics and optimization capabilities.

Key Achievements:

- ▶ **Hyper-Parameter Sensitivity Backtesting:** Distributed backtesting engine analyzing 1M+ strategy permutations across multi-decade datasets with memory-optimized processing and parallel execution
- ▶ **Advanced Risk Analytics:** Comprehensive Value-at-Risk and Conditional VaR modeling with Kelly Criterion optimization and multi-factor risk attribution across portfolio positions
- ▶ **Portfolio Decision Intelligence:** Systematic portfolio construction with correlation-based risk clustering, efficient frontier visualization, and Monte Carlo stress testing
- ▶ **Multi-Strategy Signal Intelligence:** Advanced signal quality assessment with efficiency scoring algorithm and alpha generation analysis across concurrent trading strategies

Technologies: Python 3.10, Pandas 2.0+, Polars, NumPy, Plotly, Seaborn, Pytest

Founder

Taupemist Cooperative

December 2017 - August 2020

Global

Founded non-profit blockchain cooperative exploring decentralized economy participation, demonstrating early adoption of emerging technologies and community leadership. Taupemist is a non-profit cooperative organisation, and a digital identity created to participate as a positive actor in current and emerging decentralised economies.

Project: [GitHub Repository](#)

Education

Diploma in Software Development

Computer Power Institute

2008 - 2009

Christchurch, New Zealand

Key Additional Information:

- ▶ **Open Source:** Active GitHub contributor with daily commits over past year
- ▶ **Languages:** English (Native), German (Working Proficiency), Esperanto (Limited)
- ▶ **Work Rights:** Full Australian work rights (New Zealand citizen)
- ▶ **Location:** Brisbane-based, open to hybrid arrangements

LinkedIn Skill Endorsements

Professional Validation: 23 skills with peer endorsements across 11+ years commercial experience spanning three countries. These endorsements represent validation from colleagues, clients, and industry professionals who have directly observed my technical capabilities in professional environments.

Most Endorsed Skills

JavaScript (19 endorsements)	ASP.NET (12 endorsements)	C# (11 endorsements)
LINQ (10 endorsements)	Entity Framework (9 endorsements)	.NET (9 endorsements)
SQL Server (8 endorsements)	Agile Methodologies (7 endorsements)	
Web Development (6 endorsements)	jQuery (5 endorsements)	HTML (5 endorsements)
CSS (5 endorsements)		