

# Cole Morton

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## Senior Software Engineer • AI-Augmented Development Full-Stack Architecture

📍 Brisbane QLD 4066    📞 0415 583 331    ✉️ cole.morton@hotmail.com

🔗 [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

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## Professional Experience

### 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

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**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

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**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

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**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

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**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

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**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

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**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

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**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

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**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.

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**Project:** [GitHub Repository](#)

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## Education

### Diploma in Software Development

Computer Power Institute 2008 - 2009 *Christchurch, New Zealand*

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## 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)

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### 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