

# Cole Morton

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## 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 delivering enterprise-grade systems across fintech, healthtech, and digital commerce platforms. Career progression from foundational commercial roles building healthcare systems for Australian hospitals and frontend platforms for German startups, to advanced independent technical leadership architecting generative content systems and quantitative trading software. Demonstrated expertise spans from .NET enterprise applications, to React/ReactNative/Angular web/mobile applications and cutting-edge AI tooling. Proven ability to scale development teams, deliver under regulatory compliance requirements, and architect scalable production systems. Currently building agentic AI pipelines, personal web-site, data analysis, and N8N automation as demonstrated through daily GitHub contributions over the past year. Actively seeking opportunities to contribute deep commercial expertise and modern development practices to Brisbane's thriving tech scene.

## Core Competencies

- Full-Stack Technical Expertise: 11+ years from .NET enterprise foundations to modern React/TypeScript/Python stacks with quantitative analysis capabilities
- Team Leadership & Scaling: Grew CrossLend development team from 3 to 20+ developers while maintaining platform stability and regulatory compliance
- Regulatory Systems Experience: Healthcare compliance (hospital oncology systems), FinTech regulations, enterprise-grade reliability across critical applications
- Production Systems Architecture: Hospital systems, fintech lending platforms, React Native applications, institutional-grade content generation systems
- Independent Technical Leadership: Architected Sensylate platform processing 20+ financial APIs, delivered complex projects as sole developer
- Global Experience, Brisbane Established: Proven delivery across Australia, Germany, New Zealand with current Brisbane residence and local availability

# Technical Skills

## Current Technologies (2020-Present)

**React 19 TypeScript NextJS PostgreSQL PrismaORM Docker TailwindCSS 4**  
**NodeJS** Python 3.10 Pandas 2.0+ NumPy Pytest Vercel Netlify

## Frontend Technologies

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

## Backend Technologies

**NodeJS FastAPI Express.js Python 3.10 Docker .NET Stack C# VB.NET**  
Pandas 2.0+ NumPy Plotly Jinja2 RESTful APIs WCF

## 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

**PostgreSQL PrismaORM SQL Server Entity Framework** GitHub (Actions)  
MongoDB Git GitLab Poetry npm Yarn Webpack Jenkins

## Testing & Methodologies

**Test Driven Development Agile/Scrum SOLID principles** Playwright 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 · Full-time Jul 2018 - Oct 2020 · 2 yrs 4 mos** *Berlin Area, Germany*

**Diverse Technology Stacks** I was involved at all levels of the SDLC across many teams and needed to adapt quickly to various technologies and changing business requirements.

### Key Achievements:

- **Cross-Team Collaboration:** A fast-paced and adaptive environment with seamless cross-team collaboration.
- **Rapid Prototyping:** I worked in various teams, rapid prototyping innovative PWA and SPA solutions for restaurants, hotels and businesses using cutting-edge technologies.

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**Technologies:** React.js, Vue.js, TypeScript, Styled Components, Storybook, Node.js, Express.js, Apollo GraphQL, Prisma ORM, PostgreSQL, Jest, Cypress, Webpack, GitHub, VSCode

## Senior Software Developer

**Panorama Berlin · Contract Mar 2018 - Jun 2018 · 4 mos** *Berlin Area, Germany*

**Solo Developer:** At Panorama Berlin, I was tasked with building a React Native app for a fashion show. The primary purpose of this app was to provide a QR ticket scanning solution for both event staff and attendees.

### Key Achievements:

- **Manage Time Constraints:** It was prudent to focus primarily on the core QR scanning feature to ensure it was highly robust. I made a compromise that allowed each booth to integrate with the existing QR scanning feature to provide promotions and special offers to attendees, rather than building separate features for each request.
- **Production Monitoring:** Come event day, the project was complete and I spent a long day monitoring Sentry. Minor non-feature-breaking errors occurred throughout the day stemming from older and uncommon mobile phones, but the QR code scanning worked flawlessly. The CTO was so impressed with the delivery that he personally invited me to join him when he decided to take a new role at Oetker Digital.

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**Technologies:** React Native, React.js, Node.js, Express.js, PostgreSQL, PWA, Service Workers, Sentry

## Senior Frontend Developer

**Advertile Mobile · Full-time May 2017 - Nov 2017 · 7 mos** *Berlin Area, Germany · On-site*

I was employed as a Senior Frontend Developer responsible for the AppBounty iOS application. I was a member of an extremely tight-knit, friendly and intelligent team with a strong emphasis on supporting each other and meeting our target objectives with high efficiency. I was engaged in all areas of the SDLC, however, I believe that my ability to drive new, high-quality features from inception through to deployment at a high velocity was my greatest asset.

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**Technologies:** JavaScript, iOS Development, Express.js, Gulp.js, GitLab, VS Code

## Senior Frontend Developer

**Market Logic Software · Full-time Oct 2016 - Mar 2017 · 6 mos** *Berlin Area, Germany*

During my time here, I developed a search UI using ReactJS, Styled Components, Redux, Redux-Saga, ImmutableJS, Reselect and Normalizr, using the latest design standards and ES7.

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**Technologies:** React.js, Styled Components, Redux, Redux-Saga, ImmutableJS, Reselect, Normalizr, ES7

## Senior Frontend Developer

**CrossLend GmbH · Full-time Jul 2015 - Jun 2016 · 1 yr** *Berlin/Luxembourg*

My first exposure to React.js was at a FinTech startup named CrossLend, where regulatory compliance and accuracy were essential. I joined this company as the third developer and played a pivotal role in growing their lending platform and development team. I contributed to scaling both the technical platform and the team structure, ensuring we maintained high standards while rapidly expanding. Successfully grew the development team from 3 people to over 20, while maintaining platform stability and regulatory compliance throughout the scaling process.

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**Technologies:** React.js (first exposure), Angular.js, PostgreSQL, Test Driven Development, Continuous Integration

## AngularJS Web Developer

**Dievision Agentur für Kommunikation GmbH · Full-time Sep 2013 - Jul 2015 · 1 yr 11 mos** *Berlin Area, Germany*

I worked as the lead front-end developer on a major project from one of Germany's largest banks. The front-end was built on NodeJS using AngularJS, GruntJS as the task runner and application builder, and Bower as the package manager. Karma and Protractor integrated seamlessly allowing us to quickly and efficiently create and organize our unit and end to end testing.

### Key Achievements:

- **Banking Project Leadership:** Led frontend development for major German banking client, architecting scalable AngularJS application from conception to deployment.
- **Test-Driven Development:** Implemented comprehensive testing strategy using Karma and Protractor, ensuring robust unit and end-to-end test coverage.

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**Technologies:** AngularJS, Node.js, GruntJS, Bower, Karma, Protractor, JavaScript, CoffeeScript, HAML, SASS, CSS

## .NET Software Developer

**Charm Health Pty Ltd · Full-time Jan 2012 - Apr 2013 · 1 yr 4 mos** *Brisbane, Australia · On-site*

I was employed at CharmHealth in Brisbane as a full-stack .NET developer, working on critical healthcare systems for multiple hospitals in the region. My initial responsibility involved using WCF API services to generate and update drug lists for multiple hospitals. Shortly after, I had the honor of working with a very high-profile team of contractors hired to build an oncology and patient management system for the Chris O'Brien Lifehouse at the Royal Prince Alfred Hospital in Sydney. I ensured that strict regulatory compliance was a core criterion baked into all business logic, understanding the critical nature of healthcare software where accuracy could impact patient outcomes. Successfully delivered compliant healthcare solutions that met stringent regulatory requirements while maintaining system reliability for critical hospital operations.

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**Technologies:** .NET, C#, WCF, WCF Services, ASP.NET, Silverlight, SQL Server, Entity Framework 4/5, SignalR, RESTful Services

## MVC.NET Software Developer

**ISAC New Zealand Ltd · Full-time Oct 2009 - Jan 2012 · 2 yrs 4 mos** *Auckland, New Zealand · On-site*

**Enterprise Time Tracking System:** Developed comprehensive time tracking and job request management system using ASP.NET 4 and C# 4.0, implementing robust business logic for resource allocation and project management workflows. Built scalable database architecture with SQL Server 2008 and Entity Framework for efficient data persistence.

### Key Achievements:

- **Commercial Freight Management Platform:** Contributed to team development of Door2More, web-based freight tracking management system for DHL Global Freight. Implemented critical logistics functionality supporting global supply chain operations with real-time tracking capabilities and enterprise-grade reliability.
- **Full-Stack .NET Development:** Demonstrated expertise in complete Microsoft technology stack including ASP.NET MVC architecture, object-oriented programming principles, and database design. Delivered production systems meeting commercial freight industry requirements for accuracy, performance, and scalability.
- **Early Career Foundation:** Established strong foundation in enterprise software development practices, database design principles, and commercial application deployment. Gained valuable experience in team-based development methodologies and client-focused solution delivery.

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**Technologies:** ASP.NET 4, ASP.NET MVC, C# 4.0, SQL Server 2008, Entity Framework, Object-Oriented Programming

# 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](#) [Web Site](#)

## 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*

**Major:** MCAD (Microsoft Certified Applications Developer) specializing in C# and ASP.NET development. Comprehensive training in Microsoft technologies, object-oriented programming principles, and enterprise application development.

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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)
- **Work Rights:** Full Australian work rights (New Zealand citizen)
- **Location:** Brisbane-based, open to hybrid arrangements