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 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 sophisticated multi-agent AI systems and quantitative trading platforms. Demonstrated expertise spans from .NET enterprise applications and React-based fintech platforms to cutting-edge AI orchestration processing 20+ financial APIs with institutional-grade quality standards. Proven ability to scale development teams, deliver under regulatory compliance requirements, and architect scalable production systems. Currently building advanced AI-augmented platforms while actively seeking to contribute deep commercial expertise and modern development practices to Brisbane's expanding tech ecosystem, demonstrated through daily GitHub contributions over the past year.

Core Competencies

- Continuous Technical Evolution: 15+ years from .NET enterprise foundations to AI-augmented Python/TypeScript leadership

- Production Systems Architecture: Hospital oncology platform, fintech lending system, React Native applications, institutional AI workflows

- Team Leadership & Scaling: Grew CrossLend development team from 3 to 20+ developers while maintaining platform stability

- Modern Technology Mastery: React 19, Typescript, Claude AI orchestration, quantitative backtesting, multi-agent systems

- Global Commercial Foundation: Proven delivery across Australia, Germany, New Zealand, in ecommerce, healthcare, fintech, enterprise markets

- Brisbane Tech Contribution Ready: Established locally with immediate availability for senior technical leadership roles

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

Senior Software Engineer

Oetker Digital GmbH · Part-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.

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

Senior Software Developer

Panorama Berlin 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.

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

Senior Frontend Developer

CrossLend GmbH 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.

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

.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 new 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.

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.

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

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*

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)

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