

Cole Morton

Senior Software Engineer | AI-Augmented Development | Full-Stack Architecture

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Professional Summary

Senior Software Engineer with 11+ years delivering enterprise-grade systems across fintech, health-tech, and digital commerce platforms. Technical evolution from .NET enterprise foundations building healthcare systems for Australian hospitals (oncology, regulatory compliance) through German startup ecosystem architecting React/TypeScript frontend platforms, to independent technical leadership developing generative content pipelines and quantitative trading software. Scaled CrossLend development team from 3 to 20+ developers while maintaining platform stability and fintech regulatory compliance. Proven ability to architect production systems processing 20+ financial APIs, deliver mobile applications under tight deadlines, and build enterprise banking applications with comprehensive testing strategies. Currently developing generative content pipelines, quantitative analysis tools, and automation workflows demonstrated through daily GitHub contributions over past year. Brisbane-based with international experience, seeking opportunities to contribute deep commercial expertise and modern AI-augmented development practices to high-impact engineering teams.

Experience

Independent Software Developer & Personal Web Site | Sensylate Platform

August 2024 - Present | Brisbane, Australia

- Architected enterprise-grade AI agent orchestration system with four-tier classification (Infrastructure, Feature, Assistant, Sub-agents) using Python 3.10, TypeScript, and React 19
- Implemented multi-phase agentic workflow (DASVP) with Discovery-Analyze-Synthesize-Validate-Publish framework integrating 20+ financial and economic APIs, generating 100+ deep analyses using Pandas, NumPy, and Plotly
- Built contract-driven data pipeline with advanced architectural patterns enabling automatic service discovery, orchestration, and intelligent template selection

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

Quantitative Trading Systems Architect | Quantitative Analysis Suite

Dec 2022 - Present | Berlin, Germany

Built comprehensive quantitative analysis toolkit including distributed backtesting engine analyzing 1M+ strategy permutations across multi-decade datasets with memory-optimized processing. Implemented Value-at-Risk and Conditional VaR modeling with Kelly Criterion optimization, multi-factor risk attribution, and systematic portfolio construction using Python 3.10, Pandas 2.0+, NumPy, Plotly, and Seaborn.

Senior Software Engineer | Oetker Digital GmbH

Jul 2018 - Oct 2020 | Berlin Area, Germany

- Built progressive web applications (PWA) and single-page applications (SPA) for restaurants, hotels, and businesses using React.js, Vue.js, TypeScript, and Styled Components with Storybook component development
- Implemented CI/CD pipelines with GitHub Actions, automated testing using Jest and Cypress, and optimized build processes with Webpack
- Developed backend APIs using Node.js, Express.js, and Apollo GraphQL with PostgreSQL database integration using Prisma ORM

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

Senior Software Developer | Panorama Berlin

Mar 2018 - Jun 2018 | Berlin Area, Germany

- Architected and developed React Native mobile application with QR code scanning functionality for fashion show event management serving event staff and attendees
- Deployed production monitoring using Sentry for real-time error tracking and performance optimization, delivered on time with flawless functionality earning direct invitation to join 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 | Berlin/Luxembourg

- Scaled development team from 3 to 20+ developers while maintaining platform stability and regulatory compliance in fintech lending environment
- Introduced React.js to fintech startup, building lending platform with PostgreSQL database and Test Driven Development practices
- Implemented Continuous Integration pipelines and maintained high code quality standards during rapid team expansion and platform growth

Technologies: React.js, Angular.js, PostgreSQL, Test Driven Development, Continuous Integration

Early Career Software Developer | Multiple Organizations

Oct 2009 - July 2015 | Germany, Australia, New Zealand

Developed enterprise applications across diverse industries including banking, healthcare, and mobile platforms. Led frontend development for major German banking client architecting scalable AngularJS application with comprehensive testing strategy using Karma and Protractor. Built critical healthcare systems for Australian hospitals including oncology and patient management system for Chris O'Brien Lifehouse at Royal Prince Alfred Hospital with strict regulatory compliance using .NET, C#, and SQL Server. Contributed to Door2More freight tracking system for DHL Global Freight using ASP.NET and Entity Framework. Additional roles included React-based search UI development with Redux/Redux-Saga architecture and iOS application feature development. Established strong foundation in enterprise software development, Test Driven Development, and Agile methodologies.

Technologies: AngularJS, React.js, .NET, C#, ASP.NET, JavaScript, Node.js, SQL Server, Entity Framework, PostgreSQL, WCF, Redux, Karma, Protractor, Gulp.js

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.