

Michael Kroes

Contact Information

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Profile

Adaptable developer passionate about solving technical challenges. Experienced in high-performance programming, TDD, and fostering remote teams. Committed to continuous learning and supporting team growth.

Technical Skills

- Languages: C#, Kotlin, Python, Gherkin, TypeScript, Swift, Dart
- Frameworks: .NET, ASP.NET MVC, WCF, WPF, Flask, Node.js, Vue.js, Flutter
- Tools: NCrunch, Visual Studio, JetBrains Rider, IntelliJ, AI-assisted development tools
- Collaboration Tools: Slack, Microsoft Teams, Zoom, Skype, Jira
- Databases: SQLite, MS SQL Server, MongoDB, PostgreSQL
- Methodologies: Test-Driven Development (TDD), Behavior-Driven Development (BDD), Agile, Code Reviews, Pair Programming
- DevOps: Continuous Integration/Continuous Deployment (CI/CD), Git, TeamCity, PowerShell, MSBuild (deep understanding)
- OS: Windows, MacOS, FreeBSD, Linux
- Performance Optimization: High-performance .NET programming, including multi-threading, shared memory techniques, and low-allocation strategies

Work Experience

NCrunch Developer at Remco Software (2017 - Present)

- Independently developed key features for NCrunch using a strict TDD approach, enhancing its functionality and user experience
- Solved complex technical challenges that required innovative solutions beyond standard practices
- Implemented support for multiple versions of Visual Studio and JetBrains Rider
- Developed techniques for high-speed cross-process communication, significantly improving performance
- Created and maintained a robust continuous integration pipeline using TeamCity and custom PowerShell integrations, including Slack integrations for CI/CD notifications
- Implemented comprehensive build verification processes to ensure product quality before release
- Utilized high-performance programming techniques, including multi-threading, shared memory, and low-allocation strategies to optimize critical components
- Conducted regular code reviews to maintain code quality and share knowledge within the team
- Worked extensively in various codebases to investigate and resolve issues related to running tests under NCrunch
- Recently expanded skills by building a large part of NCrunch integration in Kotlin, demonstrating adaptability and continuous learning

Technical contributor and volunteer for Type 1 Diabetes Care (2021 - Present)

- Contribute to the **Nightscout** project by making adjustments using **Node.js**, enhancing real-time blood glucose monitoring
- Developed features for AndroidAPS using **Kotlin** to improve functionality and integration with medical devices. This included UI improvements and algorithm changes.
- Made modifications to Loop using **Swift** to optimize insulin delivery algorithms and user interfaces
- Assist parents and individuals with Type 1 diabetes in setting up DIY closed loop insulin delivery systems at home
- Provide technical guidance on software compilation, device configuration, and remote monitoring setup

- Offer troubleshooting support for common issues related to the DIY systems
- Provide emotional support and practical advice to parents of children with Type 1 diabetes
- Contribute to the T1 diabetes community by sharing knowledge and experiences

BDD Coach & Technical Framework Developer (2016 - 2017)

- Coached a large team (100+ members) on adopting behavior-driven development
- Developed a technical framework for testing legacy code
- Consulted on git best practices and continuous delivery processes

Open Source Contributor - Mail in a Box (2015 - Present)

- Co-maintained the open-source mailserver project until 2020
- Review and test new pull requests
- Implement new features and improvements using **Python / Flask** and **Bash**
- Working on implementing a new continuous integration pipeline

Linear Financial Risk Engine Developer (2012 - 2016)

- Developed a linear risk engine for calculating interest rate and reporting risk for a large bank
- Utilized ASP.NET MVC for the front-end and custom C# WCF job processor for the back-end
- Implemented test-driven development and continuous delivery practices
- Participated in regular code reviews to ensure code quality and knowledge sharing
- Set up and streamlined an agile workflow, improving team efficiency and project delivery

Market Risk Aggregation and Reporting Developer (2008 - 2016)

- Developed and maintained a product for aggregating market risk for a major bank
- Responsible for the calculation engine that determined individual portfolio contributions to overall risk
- Implemented the solution in C# using test-driven development methodologies
- Successfully ported applications from Delphi and Visual Basic to .NET while maintaining and supporting the legacy code

Software Developer at Marbel Software (2002 - 2008)

- Worked on diverse projects for various clients including banks, insurance companies, emergency call centers, newspapers, news agencies, credit suppliers, and semi-government organizations
- Developed software using Delphi, Clarion, and .NET
- Specialized in data communication-related projects
- Gained broad experience across different industries and technologies

Education

Bachelor in Computer Science - Hogeschool van Amsterdam, 1997 - 2002

Open Source Contributions

- Mail in a Box: Co-maintained until 2020 (<https://mailinabox.email>)

Additional Information

- Extensive experience in remote work, with proven ability to collaborate effectively in distributed teams
- Self-employed for 10+ years, demonstrating self-motivation and time management skills
- Passionate about clean code, test-driven development, and continuous delivery
- Fluent in English, with experience working in English-primary environments
- Adept at leveraging AI tools to enhance development processes and problem-solving