

TONY MOWERS

Software Engineer & Data Scientist



Contact Information

Tony Mowers
Dorfgasse 36
CH-2514 Ligerz

Email: tony@alika.ch

Phone: +41 79 823 58 55

website: www.alika.ch

Nationality

Swiss and Canadian

Education

Bachelor of Applied Mathematics
University of Waterloo, Canada

Data Science Studies

University of Neuchatel and Coursera (ongoing)

- Machine Learning
- Multivariate Analysis
- Inferential Statistics
- Data Visualization
- Business Analytics
- Scala Programming

Work Experience Summary

1989 to Present

- Founder of software consultancy company
- Architect of several products
- Mentor and team lead for several engineering teams
- Mentor for several company level change initiatives
- J2EE, C#/.NET and HTML enterprise applications
- Machine learning based commodities trading
- Architect of IoT solution for SaaS transit application
- Embedded software for transit/telecom equipment
- Network management software for telecom
- Desktop CASE tools for C++ and business processes
- Co-founder of open-source modelling tool

Preferred Programming Languages

- Java
- Python
- C#
- Javascript es6
- Scala
- C++

Methodology Competencies

- SCRUM Product Owner
- SCUM Master
- Kanban Boards
- Rational Unified

Patent Related Work

- Dependency management in embedded software
- Behavioral driven testing for VOIP systems

Teaching Experience

- Iqnite Conference: Continuous Improvement
- Iqnite Conference: Domain Languages for TDD
- Agile Practices, Story Writing, XP Programming
- Data Science
- C++ and Distributed Application Development

2004 - Present

Senior Software Engineer, Data Scientist and Owner
Alika Analytics AG -- Ligerz, Switzerland

In my role as a consultant I am hired by companies to help with their software engineering projects, build software solutions and improve business processes.

Typical Responsibilities

- Design, implement and test software components
- Architect and build software solutions to business needs
- Lead and manage software engineering teams
- Mentor engineering teams and guide process improvement initiatives

Sample Technical Competencies

- **Java/J2EE/Sql**: public transit passenger information service, VOIP system testing platform, DSL provisioning, workflow automation, desktop tools development, REST services, IoT device management, data modeling tools
- **Python, Jupyter, scikit-learn**: commodities trading, machine learning, predictive analytics research, desktop tools development, dependency analysis tools
- **Javascript, HTML, CSS**: customer portals, retail point-of-sales, online shops, customer websites, product frontends
- **C#/.NET/SqlServer**: desktop point-of-sale, process automation, backend services for various web applications, REST services, IoT device management
- **C/C++/Sql**: network management applications, firmware/embedded software, desktop tools and teaching distributed application development

Results Summary

- Guided several client software engineering improvement initiatives
- Mentored several engineering teams on Agile practices
- Assisted clients with management of outsourced projects
- Established quantitative trading team for Wall Street commodity firm
- Implemented machine learning and portfolio management algorithms
- Designed/implemented many client applications (web/database/client-server)
- Designed/implemented point-of-sale systems for retail stores
- Analyzed, automated, and instrumented client business processes
- Implemented firmware and device management for IoT networks

1998 - 2003

Senior Software Architect, Team Lead and Consultant
Self-employed -- Berkeley, California

As a freelancer, in addition to implementing software, I was frequently contracted to lead engineering teams and help startup companies to design/implement/deliver new products and product prototypes.

Summary

- ClarusIPC: lead engineering change initiative and presented to VC investors
- NextBus: architect SaaS passenger information and transit operations platform
- NextBus: firmware developer for devices on transit vehicles
- ClarusIPC: architect/team-lead, enterprise VOIP testing product web application
- NightFire: architect/team-lead, enterprise DSL provisioning GIS application
- WindRiver: architect/team-lead for desktop IDE product

1995 - 1997

Software Architect and Team Lead
Wind River Systems -- Alameda, California

Lead usability improvement initiative for WindRiver's Tornado 2.0 Desktop IDE.

Summary

- Architect/team-lead for desktop IDE for embedded applications
- Implemented component dependency management tool
- Team greatly improved out-of-box experience for the product

1994 - 1995

Software Architect and Technical Trainer
TCSI -- Berkeley, California

Travelled to customer locations to deliver courses in distributed application development and helped review designs for network management products.

Summary

- Implemented distributed telecom network management applications
- Taught telecom software engineers distributed application design

1989 - 1994

Member Scientific Staff
Bell Northern Research -- Ottawa, Canada

This was my first major software engineering position and it was on what was at the time the world's largest realtime software engineering project (4000+ engineers developing the DMS 100 telecom switch).

Summary

- Developed embedded software for telecom switching devices
- Provided architecture guidance for software project