

Michael Condra

Futures Trading, Software Tools and Methods

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Looking for an opportunity to work in any capacity for an organization that trades financial instruments.

My software background includes C, C++, C# and Python. As a developer, I would work for any organization, not just those in the financial space.

I have self-written tools for trading futures built around the MultiCharts charting program. The tools:

- Create and manage a library of ~50,000 workspaces, shell links and desktop (workspace container) files, under TortoiseSVN source control;
- Make it easier to compare equity and futures contracts;
- Generate and batch-edit MultiCharts workspaces and related files.
- Allow MultiCharts instances to communicate and potentially to export trade signals.

I have 15 years' paid experience working on all aspects of desktop charting programs, plus 6 years working on my own to develop charting-related tools.

I logged thousands of hours watching equity and futures markets.

I have intraday signals and charting tools that could be incorporated into any business that seeks to grow its intraday trading methods.

I have a useful level of proficiency in Russian (75%) and Spanish (75%).

My home equipment is well suited to Windows software development and trading. Image: gyazo.com/f5cdde97fa4f37ff973e3fe4b9dab8e6

Willing to relocate: Anywhere

Authorized to work in the US for any employer

Work Experience

Futures Trading, Software Tools and Methods

Self Employed - Tracy, CA

September 2021 to Present

Developing futures-trading tools and methods for the PC using MultiCharts plus self-written C# and C++ software.

The focus is on building a tools infrastructure around MultiCharts, and looking for intraday trading signals for the NQ (NASDAQ-100) equity-index futures contract.

Key phrases: Futures trading, C#, WinForms, .NET, Python, MultiCharts, MFC, C++, Interactive Brokers, Trader Workstation, TWS, IQFeed, TradeStation.

Software Developer (Full Stack)

Novo Technologies - Modesto, CA

August 2019 to August 2021

Worked on the C# and SQLServer back end of a medical transportation dispatch system based on ASP.NET, communicating with an Ember and React front end. Contributed changes that made it easier to develop and debug server components locally; previously the focus was more on separate dev and testing using Postman or after deployment. Contributed internal documentation and assisted other developers. Participated in migration of codebase to Azure.

Key phrases: C#, .NET, Visual Studio, VS Code, SmartGit, SQL Server, SSMS, IIS, Postman, NuGet, Node.js, NPM, Jira, Bamboo, Newtonsoft, JSON, Agile, TSQL, RDC, Azure DevOps.

Futures Trading, Software Tools and Methods

Self Employed - Tracy, CA

April 2015 to August 2019

Studied futures trading, executed real and simulated trades, researched algorithms, and developed software tools using MultiCharts, C#, C++ and DTN data.

I have...

- strategies that visually compare futures contracts to find correlation and intraday or multi-day trends.
- procedures to identify opportunities for with- and counter-trend intraday trades.
- tools to clone or batch-edit MultiCharts workspace files outside the charting program itself. For example, these allow a workspace or its child windows to be positioned neatly in available monitors of a multi-monitor workstation.
- an add-in DLL in C++ that implements a shared key-value dictionary and can extend PowerLanguage (MultiCharts' implementation of TradeStation's EasyLanguage).
- custom indicators and functions.
- run many simulated intraday trades, and a smaller number of real trades, using Button Trader, Trader Workstation, MultiCharts trade integration, and TradeStation.

Key phrases: MFC, C++, C#, WinForms, TortoiseSVN, PowerLanguage, MultiCharts, Interactive Brokers Trader Workstation, Button Trader, Visual Studio, Virtual desktops, DTN's IQFeed.

Equipment: Lenovo P920 ThinkStation with 128GB, 2 Xeons, NVIDIA NVS 810 (non-CUDA) adapters, 8 monitors.

Programmer / Lead Developer, Windows Desktop Software to Chart and Trade Financial Instruments

MB Trading - Manhattan Beach, CA

April 2008 to April 2015

Built a full-featured MFC/C++ charting and trading program, starting from a skeletal charting program and a symbol- and account-data desktop program. Worked remotely.

For screenshots, Google-search images of "MbtDesktopPro", or use this:

gyazo.com/33e4b8125e11a8da01b14cf77decda3

I did this:

- Added a bar set management layer to capture server data and implement symbols and studies over a large range of intervals, beyond those available in the server data stream.
- Hosted a Silverlight options-trading app in an MDI child window. Implemented communication between Silverlight and MFC programs with an Eneter message queue and C++/CLI relay app.
- Added support for COM add-ins like Trade-Ideas.
- Nearly doubled the number of drawing tools.
- Adapted a library of chart studies. Coded many new studies.
- Added chart lines to display orders and positions. Lines were attached to text labels that could be clicked or dragged to perform trade-related actions: e.g., order change or cancellation. Labels and connector lines moved automatically to avoid collision as the chart size was adjusted. Lines snapped to the nearest valid price. The text on line labels and edit forms remained in synch.
- Modified MFC doc, frame and view classes so child windows could pop out onto the desktop.
- Added support for custom study settings, e.g., "My Blue 20-period EMA," displayed on context menus and exportable.
- Customized source code of the "BCGSoft BCG ControlBar Pro for MFC" UI library.
- Added alert actions where annotations, studies and/or prices intersect. Example: pop up an order-completion dialog when a trend line crosses a Bollinger Band, or execute a trade, or send an email/SMS message.
- Extended chart intervals to any integer from 1 second upward, 1 minute upward, 1 tick upward, and range.
- Added a session filter.
- Changed the implementation of timestamps to a hybrid time-plus-serializer struct, so ticks arriving in the datafeed could be uniquely keyed and correctly indexed in fast markets.

- Added caching allocators to recycle objects and reduce heap use.
- Added a bar set cache to eliminate download latency when requesting a symbol viewed recently.
- Managed historic backfill dynamically based on patterns of use. That is, the program would discard downloaded historic information, or request more of it, depending on what the user was viewing.
- Logged extensively.
- Implemented build and debug procedures using VMware Workstation and TortoiseSVN. Two or more Windows development VMs could run on a single strong workstation. They would build and run different versions of the code and be debugged in parallel.
- Stored 7 years of product history in TortoiseSVN. Could rebuild any past version.

Key phrases: Visual Studio, MFC, C++, C#, TortoiseSVN, Vault, VMware Workstation, trading from a chart, WinDbg, Wise Installer, BCG ControlBar Pro for MFC, C++/CLI.

Senior Software Engineer / Lead Developer, Windows Desktop Software to Chart Financial Instruments

eSignal / Interactive Data Corporation / Intercontinental Exchange - Hayward, CA
April 2004 to March 2008

Reworked QCharts 5 so it could receive data from both eSignal and Continuum feeds.

Added a translator that receives eSignal data but outputs Continuum data. Managed symbol lifetimes; translated symbol and exchange code names.

Lead Developer, Advanced GET 9.0 / 9.1 Dashboard Editions. Developed the code behind a multi-timeframe stock-screening Dashboard. The Dashboard compresses into a single window the result of evaluating a strategy on 20+ stocks and 5 timeframes.

Implemented studies (VWAP Approximation, Woodie's CCI Trend). Added UI enhancements. Produced installers for all shipping GET versions.

Key phrases: MFC, MDI, C++, TortoiseSVN, data-feed conversion, time-series database.

Senior Software Engineer / Lead Developer / Windows Desktop Software to Chart Financial Instruments

Quote.com / Lycos Finance - Mountain View, CA
February 2000 to April 2004

Responsible for ongoing development of QCharts, a Windows charting program with 10000 subscribers.

Nearly doubled the number of studies and drawing tools.

Added a Fibonacci pattern finder, AutoWave (tm). A doc is available.

Represented company on message boards; demoed at trade shows.

Key phrases: streaming internet, stock quotes, technical analysis, compression, MFC, MDI, C++, WinSock.

Key phrases: MFC, MDI, C++, TortoiseSVN, data-feed conversion, time-series database.

Consulting Software Engineer

Siemens ICN - San Jose, CA
June 1999 to February 2000

Completed the UI of an Outlook form for the Xpressions voice-mail product.

Key phrases: MFC, C++, Windows, Visual Studio, Exchange extensions, Outlook, ActiveVoice.

Software Engineer

Third Voice - Redwood City, CA
March 1999 to June 1999

Worked on a browser extension and content filtering.

Key phrases: Windows, Visual Studio, MFC, C++.

Software Developer / Lead

Seattle Lab - Kirkland, WA
February 1998 to March 1999

Wrote web-based administration packages for the SLmail and RemoteNT services.

Key phrases: Windows NT, Visual Studio, MFC, C++.

Software Development Engineer

Microsoft Corporation - Redmond, WA
June 1996 to December 1997

Worked on a module that migrates Windows 95 settings to Windows NT.

Key phrases: Windows, Windows NT, C.

Software Development Engineer

Microsoft Corporation - Redmond, WA
February 1994 to June 1996

Worked on the Espresso no-recompile software-localization package. This allowed near-simultaneous release of new software in multiple languages.

Key phrases: Windows, Visual Studio, MFC, C++, localization tools, Windows resources.

Software Engineer

Hewlett-Packard - Boise, ID
September 1993 to April 1994

Worked on a font-management subsystem for LaserJet printers. Left to accept position at Microsoft.

Key phrases: UNIX, HP-UX, C.

Senior Programmer

Xerox Corporation - Standards Group - El Segundo, CA
December 1990 to February 1993

Responsible for software that produced camera copy for ISO-10646, superset of UNICODE.

Key phrases: Sun workstation, SunOS, UNIX, C, sh, InterPress, UNICODE, ISO-10646.

Senior Programmer

Xerox Corporation - Corporate Font Center - El Segundo, CA
March 1983 to December 1990

Wrote software to edit and deliver fonts for Xerox laser printers.

Key phrases: VAX, DCL, Windows, C, Mesa, BCPL, Alto, Dandelion, Ikarus contour typefaces, font editor, image conversion.

Programmer

Information International - Culver City, CA
December 1981 to March 1983

Worked on file-conversion applications.

Key phrases: PDP-18 assembly language, digital typography.

Software Engineer

Autologic - Newbury Park, CA
December 1979 to December 1981

Worked on applications to support delivery of digital typography.
Wrote the company's first interactive font editor in NOVA assembly language, driving a plasma display.

Key phrases: NOVA computers, font editors, phototypesetters.

Education

Master of Science in Computer Science. Artificial Intelligence Option

West Coast University - Los Angeles, CA
January 1989 to December 1989

Bachelor in IBM Commercial Data Processing

Coleman College - San Diego, CA
January 1979 to December 1979

Bachelor of Arts in Linguistics. Emphasis: Russian. Honors.

Revelle College, U. of California - San Diego, CA
January 1974 to December 1974

Skills

- SVN Source Control, TortoiseSVN (10+ years)

- GIT Source Control, SmartGit (3 years)
- Agile Methodology (2 years)
- MultiCharts PowerLanguage (6 years)
- Windows Desktop UI: MFC/C++ (10+ years)
- Windows Desktop UI: .NET WinForms (10+ years)
- Microsoft SQL Server, T-SQL (3 years)
- Methods and Tools for Futures Trading (6 years)
- .NET
- C#
- Research
- SQL

Additional Information

800 on SAT Math Achievement Test.

Russian: 75%. Spanish: 75%.

Background Includes C, MFC/C++, C# and now Python.

LinkedIn: [linkedin.com/in/michael-condra-a55725](https://www.linkedin.com/in/michael-condra-a55725)

Resume posted here: <http://www.scguild.com/Resume/9597R.pdf>

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