

9/22/25

Cold Fusion Adobe Summit

30 years of
Cold Fusion

Vivek Kumar - Senior Product Lead

- The journey - the timeline - the story

Tim Cunningham - Silvervine

- static web pages vs dynamic web apps - they started back in 1995 with ColdFusion - maturing along the way
- code decisions & lessons learned - most times... you can and should use boring technology - Don't compare your middle to someone else's end

Sense - Patrick Leal from Brasil

- Their journey - they started in 1997 with ColdFusion 3.0 - switched to web services & OOP (object oriented programming) - moved to a framework - moved to Docker & Kubernetes - they still have a number of older legacy systems that are still running, even on old versions of ColdFusion

Vivek Kumar - Adobe

- new subscription model
- more security
 - bug bounties - having people tell us what is wrong
- Productivity

Bruno Raffet & Sonia Zatzépine

Sourcemax

Sodexo

- Taking big applications into smaller pieces - the process & planning that is required - visual architecture of what is going on -

9/22/25 (Continued)

Vivek Kumar - Adobe

Market Trends

- GenAI Integration
- Developer Productivity Tools
- Cloud Adoption & Cloud Native Development
- Security & Compliance

AI Trends

- AI Services
- Microservices & Containers
- Subscription release
- Business automation
- Enterprise-Grade Performance

PS: 2

MCP (model context protocol)
Integration

- a wrapper over your API (fuzzy) (fixed)
- work with the API via conversation vs hand coded access

Assistants ... simple chat & coding for use cases

- showing prompts & letting people use the new actions or prompts - using tools on the fly - research & summaries

MCP Server

- tools, prompts, instructions, tools calling tools

Threat modelling - security stuff

Security Analyzer tools

Getting younger kids into code and development - even at a middle school level - kids want to learn & grow & be successful

9/22/25 (Continued)

- Let the students explore & trying to solve problems
 - more than just programming ... making an ecosystem and community -
 - A student who was showing a "bug" and looking for feedback and help to solve it - he openly was asking for help & showing a vision
 - Get involved with the schools & helping students learn
-

Session #1

Real-Time Graphs with CF & GraphQL & websockets
By Dave Ferguson

- Pg. 3
- GraphQL is not a graph - it's a translator that can reach out to other tools & resources
 - GraphQL doesn't care how it gets your data ... very open
 - Query, Mutation, Subscriptions
 - You can reduce the data in & out (smaller footprint)
 - You tell it what is there & how to get to that data
 - Launch details
 - raw http clients
 - fetch requests
 - fetch response

9/22/25 (Continued)

- cursor value and has more
 - where am I
 - what else do I have
- pagination
- Mutations - Changing data
- Subscriptions - External database triggers & live data streams
 - subscribes, event triggers, & real-time push
- threads
- Scheduled tasks
- thread management
- Websockets - push & pull data through open (ish) connections
- publishing data
 - wsPublish to specific channels
- cfwebsocket tags
- cf charts
 - adding in custom themes for your charts
- data flow ... ingest, store, subscribe, transmit, display
- real-time charting ...
 - placeholders & empty characters
- inferring data - based on existing data - finding the data in the dead spaces
- binding & unbinding data to help with load times

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9/22/25 (Continued)

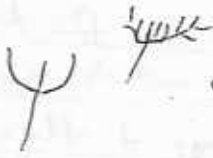
- sometimes you have to trick it - give it fake or blank values to start with - then, as new data is available we just switch things out -
- zing charts
- rewriting the chart every time - it may sound bad but it seems to have the best performance vs just updating the graph values & labels
- real-time graphs & videos - showing the data ~~story~~ in a visual & dynamic display
- game-a-fy ... not sure on the spelling - basically gaming loops & web sockets
- Setup your GraphQL to watch for database changes ... external triggers

Session #2

Git Smarter: 20 Tips From Beginner to Power User
Jacob Beers

- Just for fun ... "say as many as you can as fast as you can & don't stop for any reason"
- Git - version control systems
- Think of Git like a time machine for writing software

9/22/25 (Continued)

- publishing a release note or release blog
 - Get a cheat sheet - quick commands & references
 - CLI - command line
 - VS Code & gitLens
 - Design Your Workflow
 - ^{write} test, code, run test, commit, repeat
 - Quality Commits and adding comments & documentation
 - stashing, resets, & rebase and interactive rebase
 - Commit early and commit often
 - Leave yourself crumbs or a crumb trail
 - Creating shortcuts & aliases
 - Creating personal repos
 - Forking the project  CI/CD
 - git checkout vs git switch
 - tag things - what goes with what
 - Be careful with cherry picking
- Continuous integration
& continuous deployment

Ps: 6

9/22/25 (Continued)

- create bundles
- Break It up - organization & sub levels

The Ben & Ryan Show

- Discussion on AI - interactive
- hiring - running resumes through ChatGPT
- running sample code through AI and making decisions on how well the new employee did
- taking things in context
- Almost too much wiggle room & advancing too fast
- You have to have a knowledge base to start - knowing what is good & bad
- Physical world vs digital world
- Dangerous mode ... for AI agents
- You can try things & then throw it away because you didn't write it
- Being curious ... a life long learner
- Using AI as a coach or someone who you can ask questions - an anytime coach

(X)
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9/22/25 (Continued)

- Filling in the gaps
- Practicing with the Agents
- prompt engineering
- Helping to rewrite legacy code
- Little small bytes or bites
- requirement specs

pg. 6

Session #3

Mastering prompt engineering: Getting AI to work for you

By Guust Nieuwenhuis

- input, output, & how to interact with the LLM - (large language models)
- Frameworks
- A.P.E. - action, purpose, expectation
- Elements of a prompt
 - instruction, context, input data, output indicator
- using natural language

9/22/25 (Continued)

- Communicate what you want vs saying what you don't want
- On prompts, talk number of paragraphs + sentences vs a word count
- you can use simple xml to create the delimiters
for example : `<info>` ← start
 `</info>` ← end

20.9 - what style or role is the agent playing?

- Contextual prompting

- on LLM's - there are configuration options

- output length, response type, temperature, top-k + Top-P, + system instructions

- temperature ... how logical or random is the output

- top-k and top-P - variables to help it know how to run + how to react - almost personality level settings and randomness of the responses

- Step back ... feed the answer ⁱⁿ and then have it build backwards ~~subtra~~

- Clarification prompting - have it ask you some questions

9/22/25 (Continued)

- Chain of thought (CoT) - helping it know how to think
expose the thinking or logic
- Tree of thoughts (ToT) - chaining - letting it go through scenarios
- Prompt chaining - small tasks + then put them together
(stacking of simple things)
- Reason + Act - reasoning + acting - mimic what we do as human in the real world
- Automatic prompt engineering - you ask it what to prompt if you want x, y, or z - have it help write the prompt and then review what it asks or gives back to you
- Code prompting
 - what are you looking for - be specific
- Be careful for prompt injection

Session # 4

Language barriers - i18n - kinetic Interactive
Kevin D. Wright

- i18n = internationalization - able to be adapted for users of different languages and cultures
- L10n = localization

9/22/25 (Continued)

- Separate content from code
- resources + maintenance challenges
- UTF-8
- pluralization + grammatical structures
- Making your buttons + containers flexible
- Cultural sensitivity
- Content heavy websites might not be a ^{good} fit
- you may have to have a website for each language
- ColdBox has a built in framework
- inheritance - levels of where it gets its data
- ColdFusion localization functions ... `LSDateFormat()`
= `LS[something]`
- Colors meter, images meter, symbols meter
- Language + direction
- CSS contains a ~~to~~ lang pseudo class
- Build with globalization in mind from day one
- Flexible + expandable layouts

9/22/25 (Continued)

- the user experience matters - you can lose customers if you do it wrong

Session # 5

Getting started with MVC in ColdFusion using FW/1
By Carl Von Stetten

- FW/1 - Framework-one
- Procedural code - old school - .cfm & .cfc's
- ColdFusion request cycle - on application start, on session start, on page request^{start}, etc.

- Downside of procedural code ... Increasingly hard to maintain, hard to distribute work to teams, code duplication, testing becomes harder



- the Controller updates things...
- the model is the business logic
- the view is what they see
- Frameworks - modules & subsystems; URL routes, layouts, view templating, etc
- "RC" - is a scope - the controller uses that - what do you want? Then delivers that back to you.
 - RC = "request context" - it's a structure
- FW/1 - been forked to CFMVC

9/22/25 (Continued)

- Anatomy of a URL
 - action
 - section
 - item
- Ideally you match things up
- SES-friendly URL's
- The layout wraps the view
- Build URL functions
- Dependency Injection (DI)
- Start new work in MVC pattern

Day 2

9/23/25

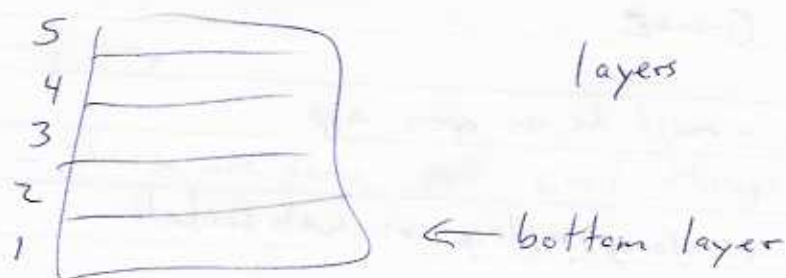
Adobe ColdFusion Summit

E.A. "Rockett"

- Software designer, developer, copyright, business strategy, digital media
- AI intrapreneur & auteur - internal creation
- do what you do soooo well
- Transformational change - vision & looking beyond

9/23/25 (Continued)

- Create the curve - not ahead of the curve, but become the curve
- Reimagining
 - old saying - Do more with less - that doesn't really work
- Blackbelts - masters, Grassroots - ^{organically} self change; Humans ~~and~~ rock. ^(person)
- AI is a probabilistic system
- Deterministic ^{system} - ^(spelling) consistent or able to determine the outcome
- where to put the money - investing in people
- who can mix what is needed to get the right mix?
 - Someone (human) that is willing to mix & blend
- reimagined worlds - being part of the process
- What if you tried to ... Do less with more
- Consider the layer...
- Maybe layers not steps...
- He was talking about - General knowledge, specific subject knowledge, expert knowledge, output content controls/restrictions, generate outputs



9/23/25 (Continued)

- Combination of probabilistic & deterministic models
- code beats paper - interesting statement

Day 2 Session # 1 - Brian Kfiss

- AI Biases

- feedback loops - try to provide diversity

- Environmental concerns - crazy... if you really look at it

- maybe think about caching prompts

- Strive to use non-reasoning models when possible

- Use smaller models - ~~we~~ may have some options

- balance - there needs to be a balance

- Sometimes smaller models can be the answer

Small note -
I got to this
one late... I was
on the phone with
Steve - took notes
while standing

9/25

Day 2 session # 2

Mastering websockets

By Giancarlo Gomez

- High frequency - must be an open app

- short polling vs long polling vs websockets

9/23/25 (Continued)

- two-way connections
- He showed some good demos (mini videos) - we was going super fast
- They are really good for communications + real-time connections
- He was flying through things - Setup in the admin, setup who you want to publish, then get a subscriber, then let it start pushing + pulling data
- authenticate, subscribe, publish, invokeAndPublish, invoke, unsubscribe, getSubscriberCount, getSubscriptions, openConnection, closeConnection, etc.
- He will put up demo code on the Adobe website
- Channels
- selectors
- Channel Listeners
- Instances in enterprise
- Proxy config
- pinning
- There are some ~~cool~~ cool things but it is kinda deep

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9/23/25 (Continued)

Session #3

Building a Custom AI Agent

By Monte Chan

- C/F web tools

- <https://github.com/knittingguy>
- Machine Learning
- AI agent has some autonomy - able to make decisions without a constant human intervention
- Langchain, langgraph
- Hallucinations - not enough information
- RAG - Retrieval-Augmented Generation
- Vectors + vectorstores
- when you get your secrets key, you only get to see it once
- states - Keeping track of things - kinda like server memory
- These things ^(AI Agents) need access to some memory - that seems to be a small gap in some of the models - persisting some of the data
- Human in the loop - we mostly want this style - right now -
- Interrupt the flow

9/23/25 (Continued)

Session # 4

Using Adobe Firefly

- using normal REST API's
- experimenting to see what you get and/or got
- Setting the strength up/down to get a better match

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Session # 5

OAuth 2.0 with ColdFusion
Michael Hayes

- CF Entra
- OAuth or (open authorization) - authorize a third-party to do something on your behalf (the user)
- Bearer tokens
- scopes - read/write
- requested, consented, + enforced
- refresh tokens
- Grant types
- Automatically refresh the tokens - keep this going

9/23/25 (Continued)

- Instance Metadata Service
- Jumped into some demos
- Consent
- ^{zero} Trust framework - segment access, build for each,
- JWTs - JWT (Java web tokens) for Microsoft

Session #6

Legacy Code - Lessons Learned
By Grant Copley

- Nightmares, hellscape, & lessons learned
- Big page scripts
- No query params
- Nested includes
- multi-action pages
- m-line JavaScript
- m-line CSS
- duplicate code
- magic numbers (example) (status ID = 8)

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9/23/25 (Continued)

- Little OOP

- No testing

- I didn't know any better

- It works ... that is awesome

- Frameworks - where to put your code

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- MVC - Models, Views, Controllers

- Queries → Service/Gateway objects

- HTML - views

- Page actions → Controllers

- Apply what you are learning

- Cleaning up your code

- Book - "Working Effectively with Legacy Code"

- Code without tests

- Safety nets

- Characterization tests

- document what code currently does

- Preserve existing behavior

- help us understand existing behavior

- use them Before we make changes

- create safety net for refactoring

9/23/25 (Continued)

- transaction rollbacks - when possible
- After characterization tests
 - Our code is reasonably safe for refactoring
 - we have a better understanding of inputs & outputs
 - we can be confident as we start making improvements
 - keep writing tests
- Get creative - capture what is already there
- move legacy code into manageable .cfm files
- We can test the unstable
- Think about using AI to help clean-up your code
 - AI could help us create your characterization tests
- An imperfect test is better than no tests
- challenge ... add one characterization test around some risky code - then push the testing until it passes & shows what should be there
- CFFormat
- Final Takeaway ... Testing is the answer to escape legacy hell