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# Hello from Heather Stephens

Oracle Java Developer Relations

Java in Education

June 2023


BIG SKY COUNTRY
7-406
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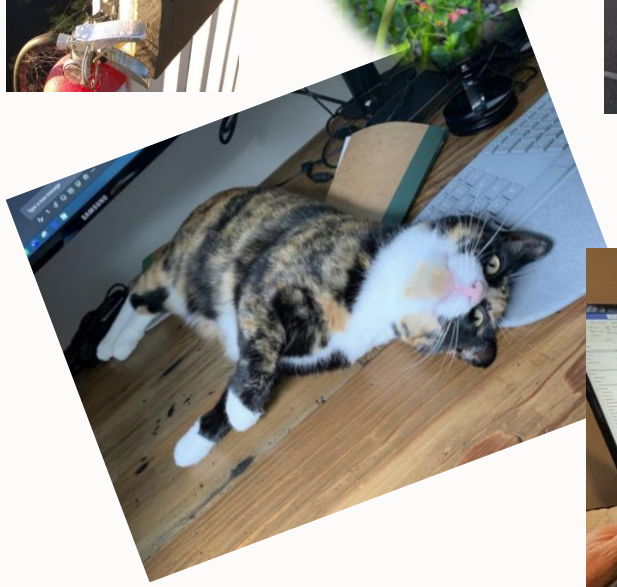
1889




Heather
Stephens
Quattrofest 2019
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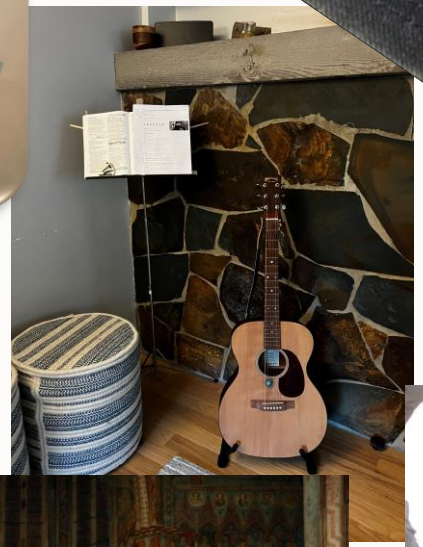
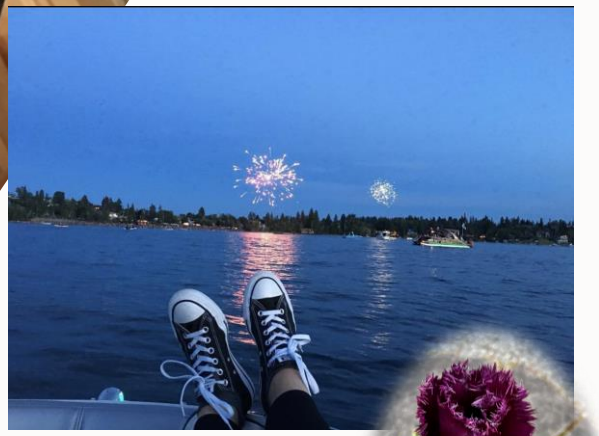
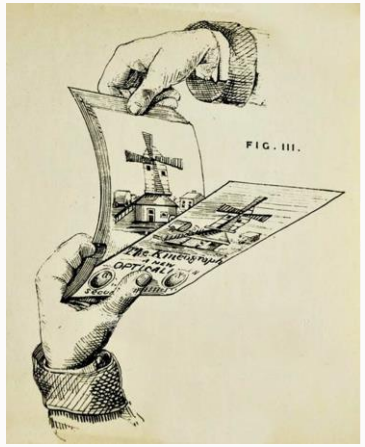
Quattrofest





# What brought me here?

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# We are Moved By Java and Want Young People to Feel the Same


## Java is the language of the Art of the Possible

It encourages creative solutions, is relevant to the problems of the future, and creates opportunity


## Java is the language of the Art of the Probable

It makes simple things simple, makes difficult things possible, and can be used to create anything


## Java is the language of a Vibrant Community

It is a diverse, inclusive, energetic tribe of developers who feel respected, heard, and supported

# Growing New Java Developers is Critical to Java's Future

**Our goal:** We want the next generation of developers and educators to become evangelists of Java.

**The problem:** The next generation is not choosing Java. They perceive it as not modern, too complex, not fun, not inclusive, not listening.

**Moving the needle requires:**

1. Changing the **perception** by modernizing Java in the education sector
2. Simplifying the **developer experience** by making it easy to get started
3. Creating a delightful **learning experience** to enable teachers and the provider ecosystem to succeed
4. Building and fostering a **community** for students that is diverse, inclusive, supportive, and that "looks like them"

# Key Learnings from Computer Science Education Sector

| | |
|---|---|
| **Developer Experience** | • Activation Energy required is too high. Getting started with “hello world” isn’t simple.<br>• Knowing what to install isn’t trivial and many students work on chromebooks so cannot install anything.<br>• Teachers are on IT managed machines which often dictates use of Java 8 and only the core JDK.<br>• Negative feedback about public static void main(String[] args) and esoteric error messages.<br>• The ecosystem of libraries, frameworks and tools is complex to navigate for new developers but necessary to relevant creation. |
| **Learning Experience** | • Advanced Java concepts, like OOP, are hard to grasp for young people with no coding experience.<br>• Young people expect immediate, tangible results with a physical or visual component.<br>• Examples of creative, relevant, fun, modern Java projects are not easily discovered.<br>• It is hard for teachers to keep up with the pace of technology.<br>• Primary and secondary teachers face a whole host of issues such as lack of training and funding.<br>• University professors can be resistant to change. Industry can help move that needle by demanding colleges produce grads with experience on modern Java or any technology.<br>• Broader Education industry is also in flux and necessitate change, such as alternatives to 4 years colleges. |
| **Community** | • The Python community is perceived as open, vibrant, and diverse by young people. Java is seen as the opposite.<br>• Java doesn’t have a strong presence within the education ecosystem and associated conferences. |
| **Perception** | • Most of the Education System is on Java 8 feeding the perception that Java is too hard, irrelevant, and dying.<br>• Python syntax is perceived as simple to get started, and it is seen as the language of modern problem solving with data.<br>• Java is perceived as the language of legacy middleware, not of newer technology trends (AI/ML).<br>• Kids, especially those from diverse backgrounds, cannot envision themselves as future Java developers.<br>• When corporations sponsor education conferences for Java promotion, the booths and offerings have a staid, outdated feel. |