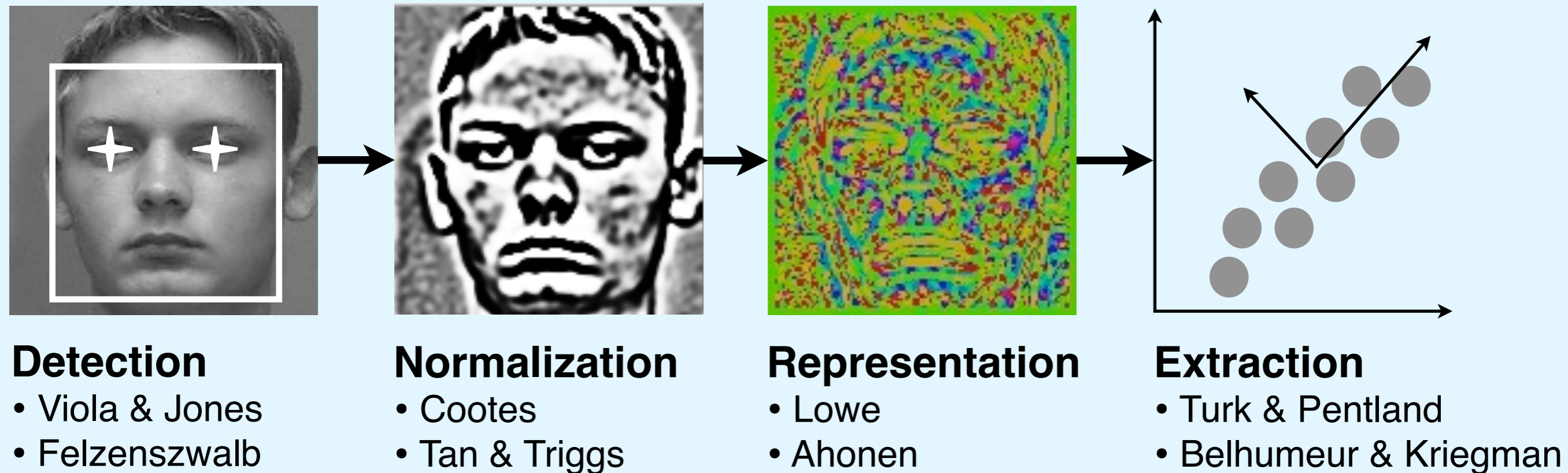


Open Source Face Recognition

Josh Klontz
Noblis

A typical face recognition algorithm



Observations

- Research focuses on isolated steps
- Few implementations of complete systems
- Engineers must piece together components

Issues

- Unclear how new ideas interact
- Barrier to entry to test new ideas



The biometrics community doesn't have a communal open source framework of its' own.



What's in it?

Off-the-shelf algorithms

- Face Recognition
- Gender & Age
- Commercial Wrappers
- Other Algorithms

Systems engineering

- Enroll & Compare
- Serialization
- Parallelization
- Fusion & Clustering

Algorithm evaluation

- Standardized workflow
- Plot generation
- Command line interface

Algorithm development

- C++ plugin API
- Embedded grammar
- Model training



When did they associate?



Where else is he?

Everyone with an image has an image recognition problem.




What is he doing?



Who are they?

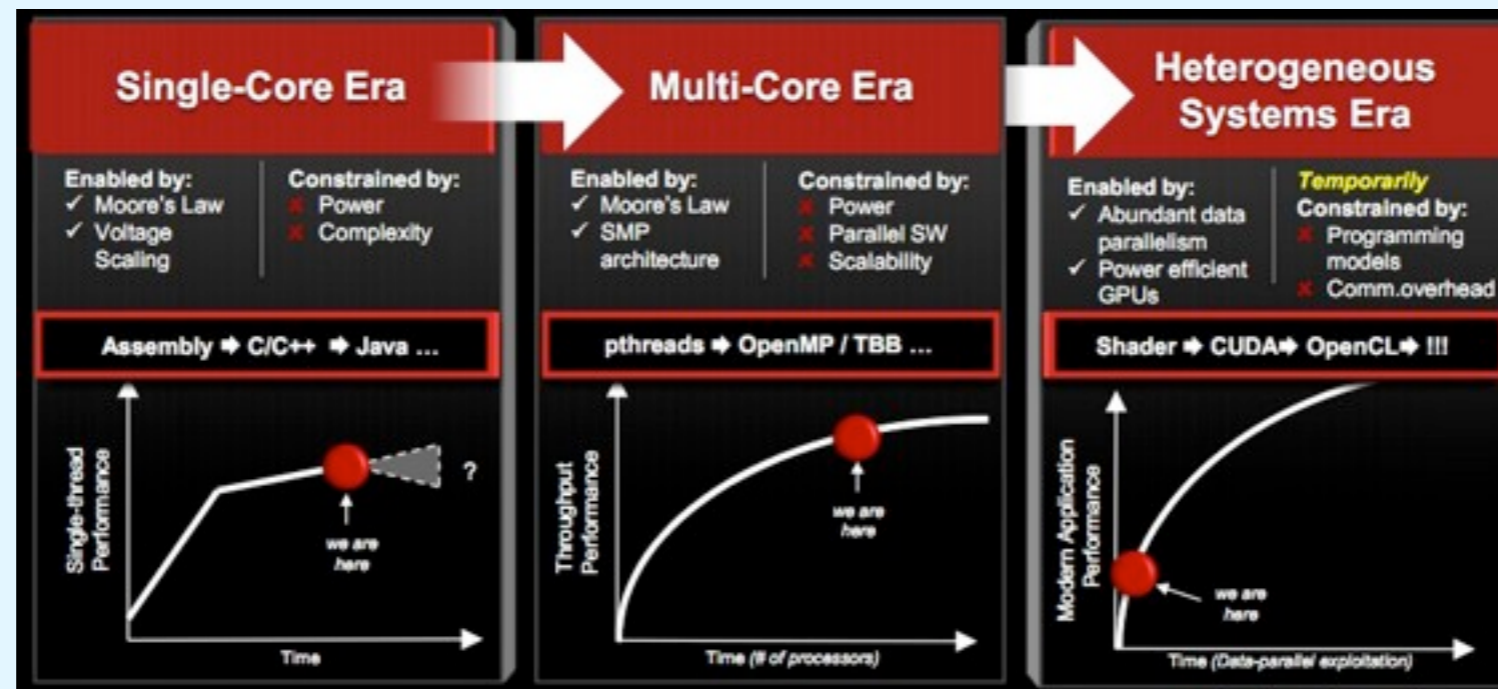
A Domain Specific Language for Visual Recognition

Live Coding (Programmer Productivity)

Abstract	<pre>function house (x) {</pre>	
var	<pre> rect(x, 80, 40, 25);</pre>	
function	<pre> triangle(x, 80, 20 + x, 60, 40 + x, 80);</pre>	
Flow	<pre>}</pre>	
if	<pre>house(44);</pre>	
for	<pre>house(101);</pre>	
while	<pre>house(143);</pre>	

<http://worrydream.com/#!/LearnableProgramming>

Heterogeneous Architectures (Hardware Productivity)



<http://www.extremetech.com/computing/116561-the-death-of-cpu-scaling-from-one-core-to-many-and-why-were-still-stuck>

www.openbiometrics.org

Joshua.Klontz@noblis.org