Mapping

Lecture 13
Sept 30, 2016

Learning to code can get you a $70,000 job
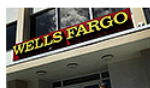
by Selena Larson   @CNNTech

Recommend 2.2K

00:06 / 02:21
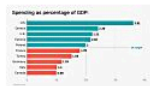
Coding bootcamp: A college alternative

It's no secret that coding is a lucrative skill, but it turns out learning this skill can actually double your salary.

Coding Dojo, a coding bootcamp founded in 2012, released a report Tuesday, which found that 56.5% of its graduates earned less than $35,000 before enrolling. After completing the 14-week course, graduates make an average of $72,221.

Janet Browne, Harvard University: "Rethinking the Darwinian Revolution"

Janet Browne is the world's leading expert on the life and work of Charles Darwin. She is the author of the acclaimed two-volume biography: *Charles Darwin: Voyaging* (1995) and *Charles Darwin: The Power of Place* (2002). Her work has been recognized by the award of the James Tait Black Prize, the Heinemann Prize, and the Pfizer Prize. She currently serves as President of the History of Science Society.

In this lecture, Professor Browne will reflect on recent scholarship that has reassessed the place of Darwin's ideas in nineteenth-century scientific and social thought.
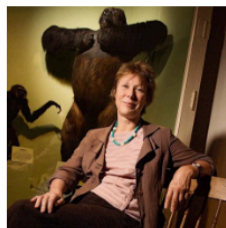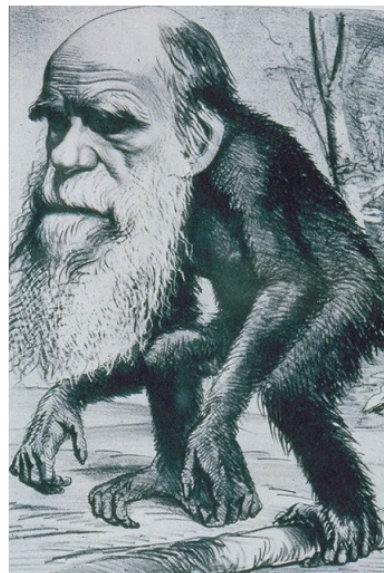

Contact

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20 Academic Way

Event Details

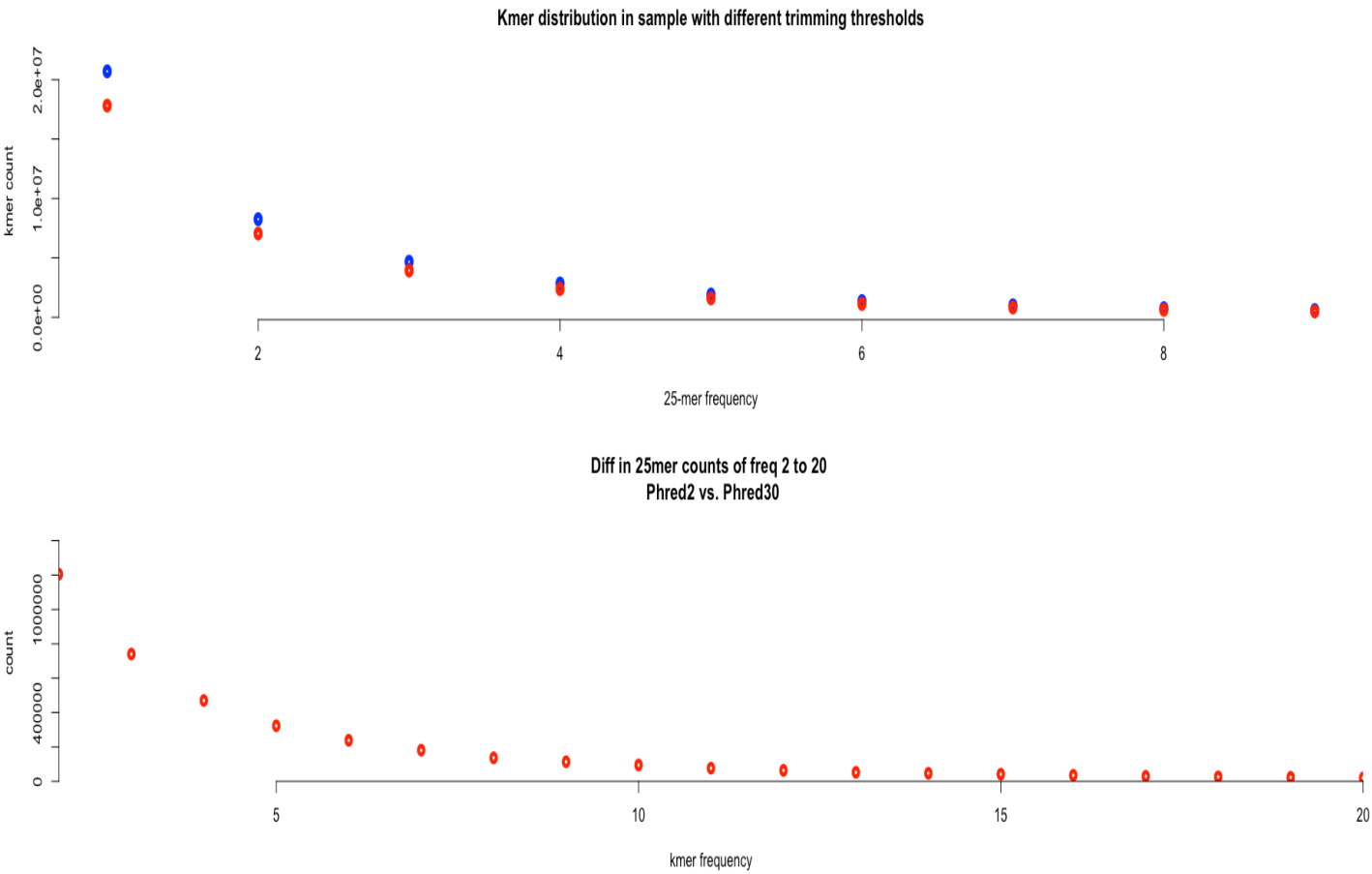**Event Details:**
Monday, October 17, 2016 -
4:00pm to 5:30pm

Price: Free and open to the public.

Location:
MUB 334

Directions and Parking

BRIEF INTRO TO KMERS

Kmer distribution in sample with different trimming thresholds

kmer count

25-mer frequency

Diff in 25mer counts of freq 2 to 20
Phred2 vs. Phred30

count

kmer frequency

Read Error Correction

ERROR CORRECTION

TATACAATTTCGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGCTCCTATTTTATACAATTTCGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGC

ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGG**C**CTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTG**A**CATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA

Consensus= ACTGTCATTCGGACTA

ERROR CORRECTION

TATACAATTTCGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGCTCCTATTTTATACAATTTCGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGC
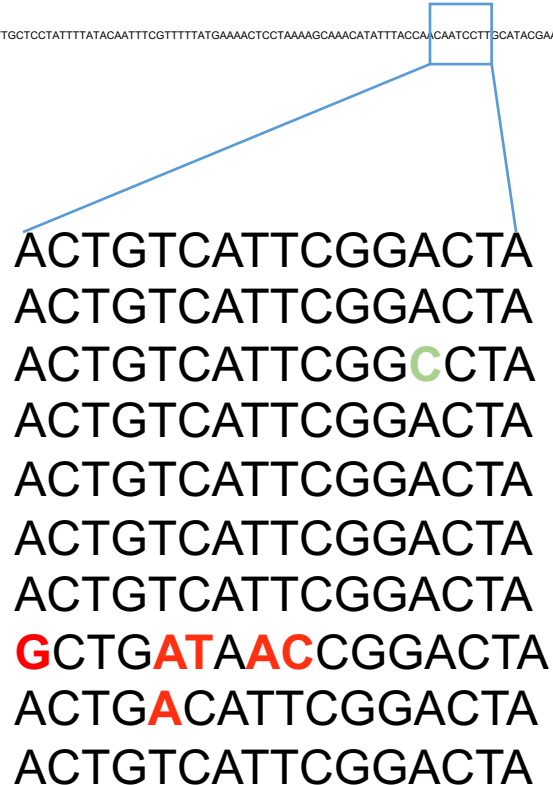
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGG**C**CTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTG**A**CATTCGGACTA
ACTG**A**CATTCGGACTA
ACTGTCATTCGGACTA

Consensus= ACTG**{A,T}**CATTCGGACTA

ERROR CORRECTION

TATACAATTTCGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGCTCCTATTTTATACAATTTCGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGC

ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGG**C**CTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
ACTGTCATTCGGACTA
GCTG**AT**A**AC**CGGACTA
ACTG**A**CATTCGGACTA
ACTGTCATTCGGACTA

Consensus= ACTGTCATTCGGACTA

ERROR CORRECTION

Hamming Distance:
http://en.wikipedia.org/wiki/Hamming_distance

ERROR CORRECTION

3 different strategies

ERROR CORRECTION

Kmer-spectra based

ERROR CORRECTION

MSA based

ERROR CORRECTION

Evaluation of Correction