Note from Jeremy: *Do you want to study deep learning with me in person? I'll be teaching the brand new version of this course at the Data Institute at USF (https://www.usfca.edu/data-institute) in San Francisco from late-October 2018. For details or to apply, see the course web site (https://www.usfca.edu/data-institute/certificates/deep-learning-part-one).*

Welcome to the 2018 edition of fast.ai's 7 week course, Practical Deep Learning For Coders, Part 1, taught by Jeremy Howard (Kaggle's (http://www.kaggle.com) #1 competitor 2 years running, and founder of Enlitic (http://www.enlitic.com)). Learn how to build state of the art models without needing graduate-level math—but also without dumbing anything down. Oh one other thing... it's totally free! And there's a whole community of thousands of other learners ready to help you with your journey—just head over to forums.fast.ai (http://forums.fast.ai/) if you need any help, or just want to chat to other deep learning learners.

"fast.ai... can actually get smart, motivated students to the point of being able to create industrial-grade ML deployments"

Harvard Business Review
The Business of Artificial Intelligence (https://hbr.org/cover-story/2017/07/the-business-of-artificial-intelligence)

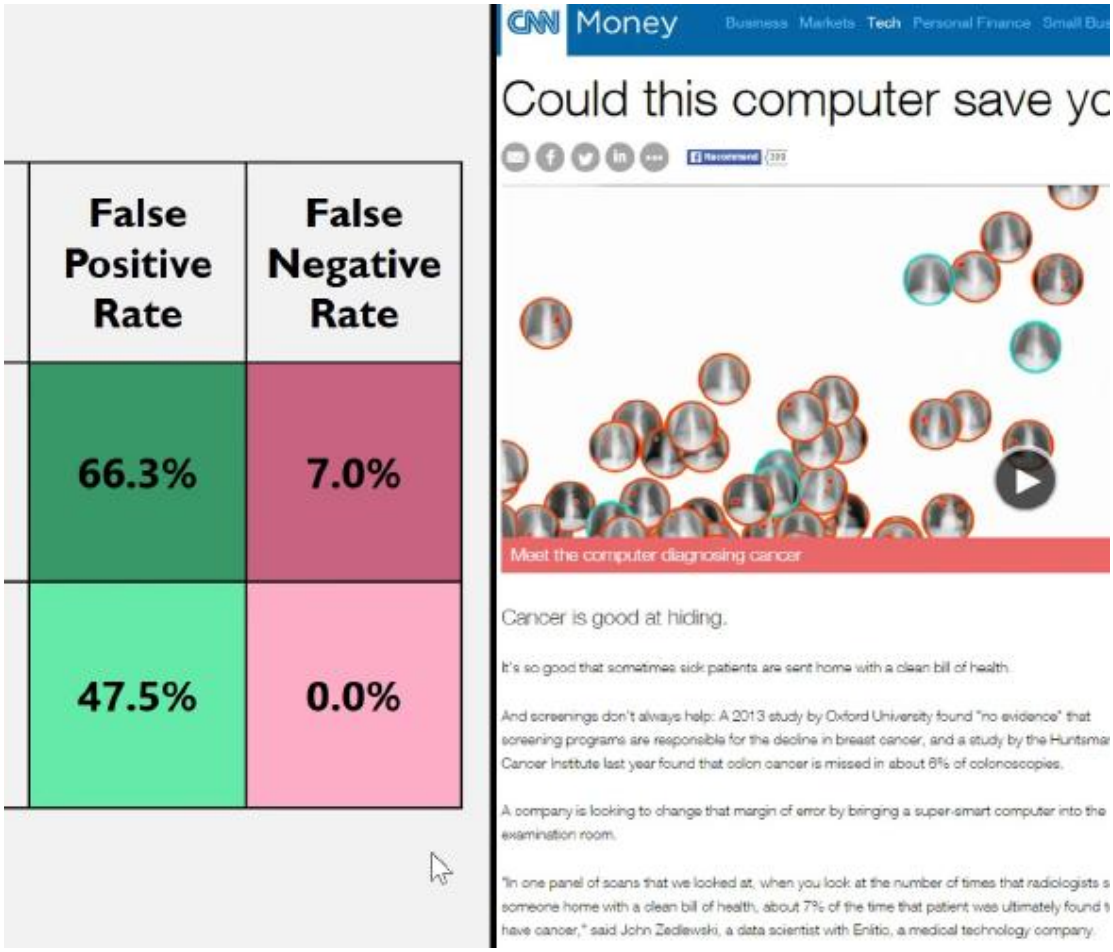
State of the art

WE SHOW YOU HOW TO GET WORLD-CLASS RESULTS, STEP BY STEP

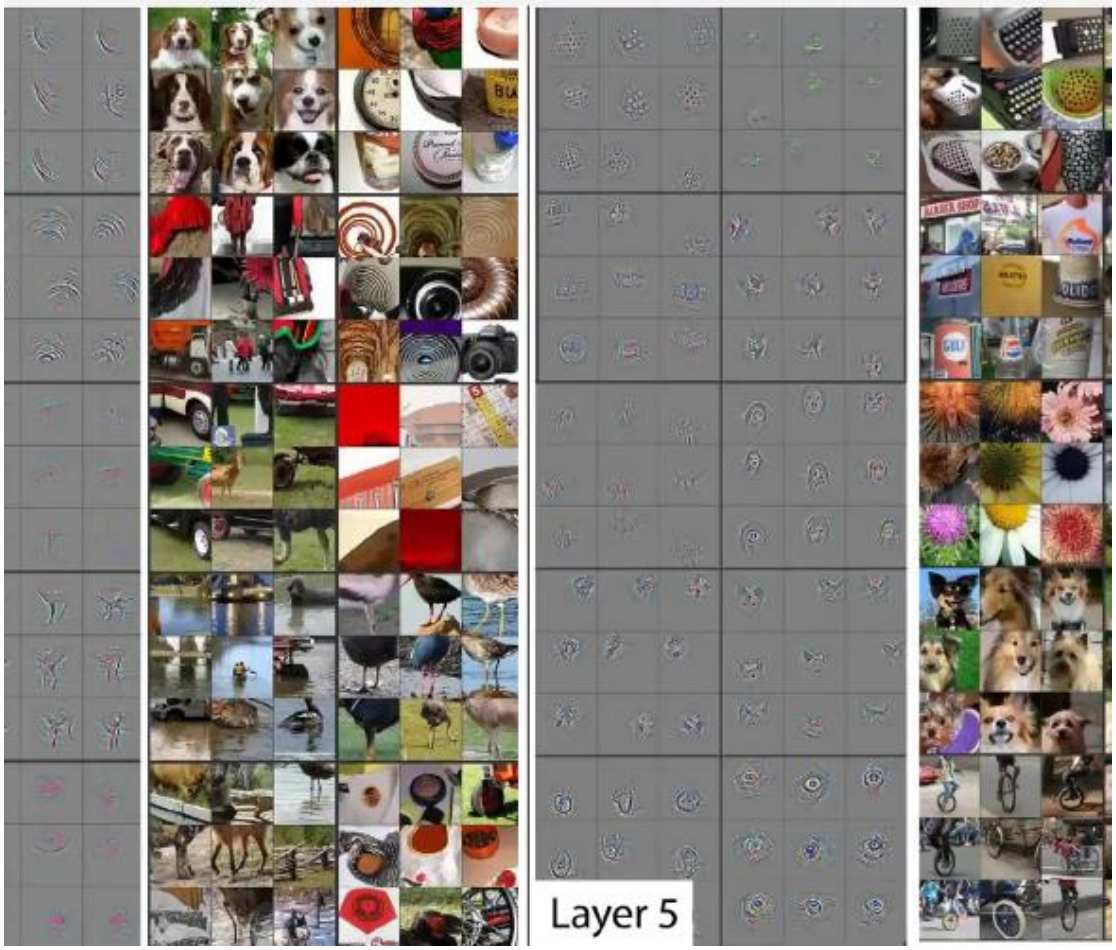
This 7-week course is designed for anyone with at least a year of coding experience, and some memory of high-school math. You will start with step one—learning how to get a GPU server online suitable for deep learning—and go all the way through to creating state of the art, highly practical, models for computer vision, natural language processing, and recommendation systems. There are around 20 hours of lessons, and you should plan to spend around 10 hours a week for 7 weeks to complete the material. The course is based on lessons recorded during the first certificate course at [The Data Institute at USF (https://www.usfca.edu/data-institute/)](https://www.usfca.edu/data-institute/).

UNIVERSITY OF SAN FRANCISCO

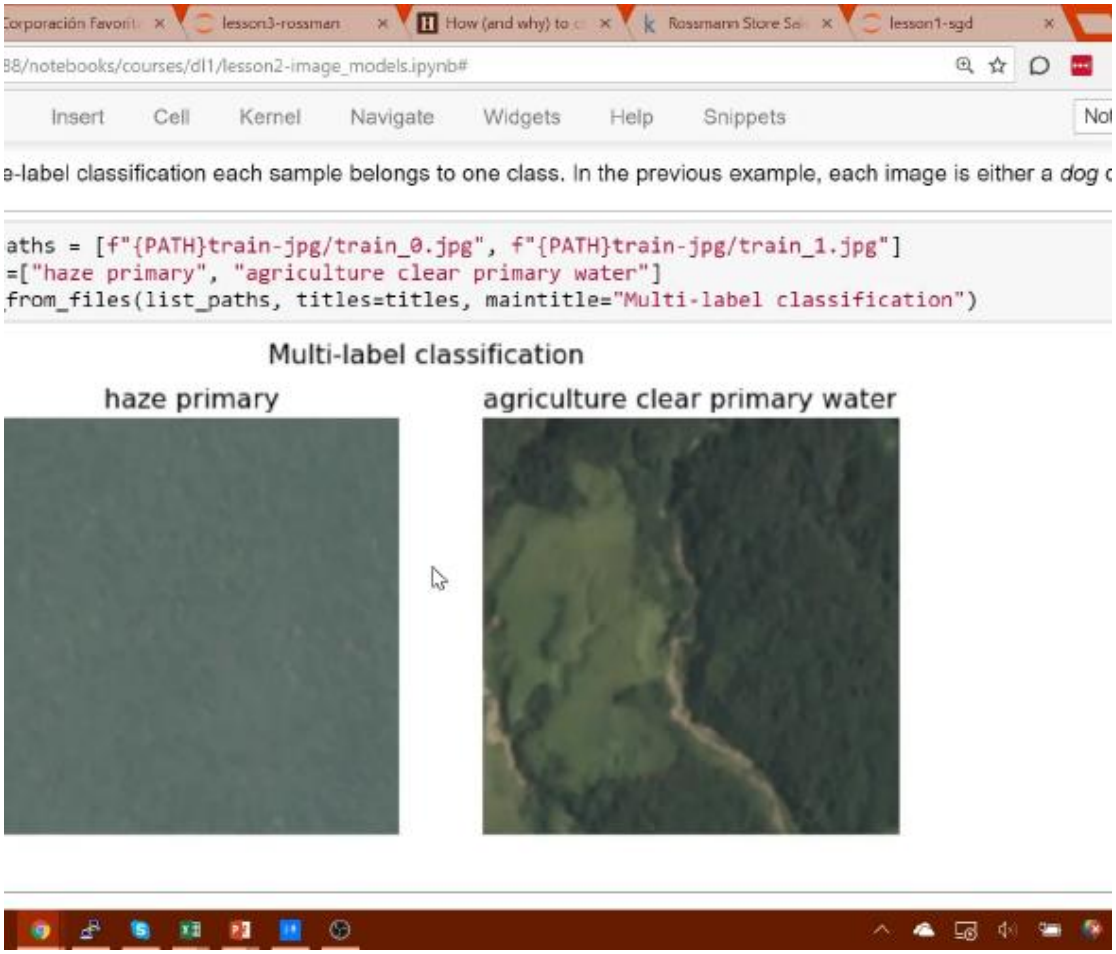
THE LESSONS / [VIEW DETAILS (LESSONS/LESSONS.HTML)](lessons/lessons.html)



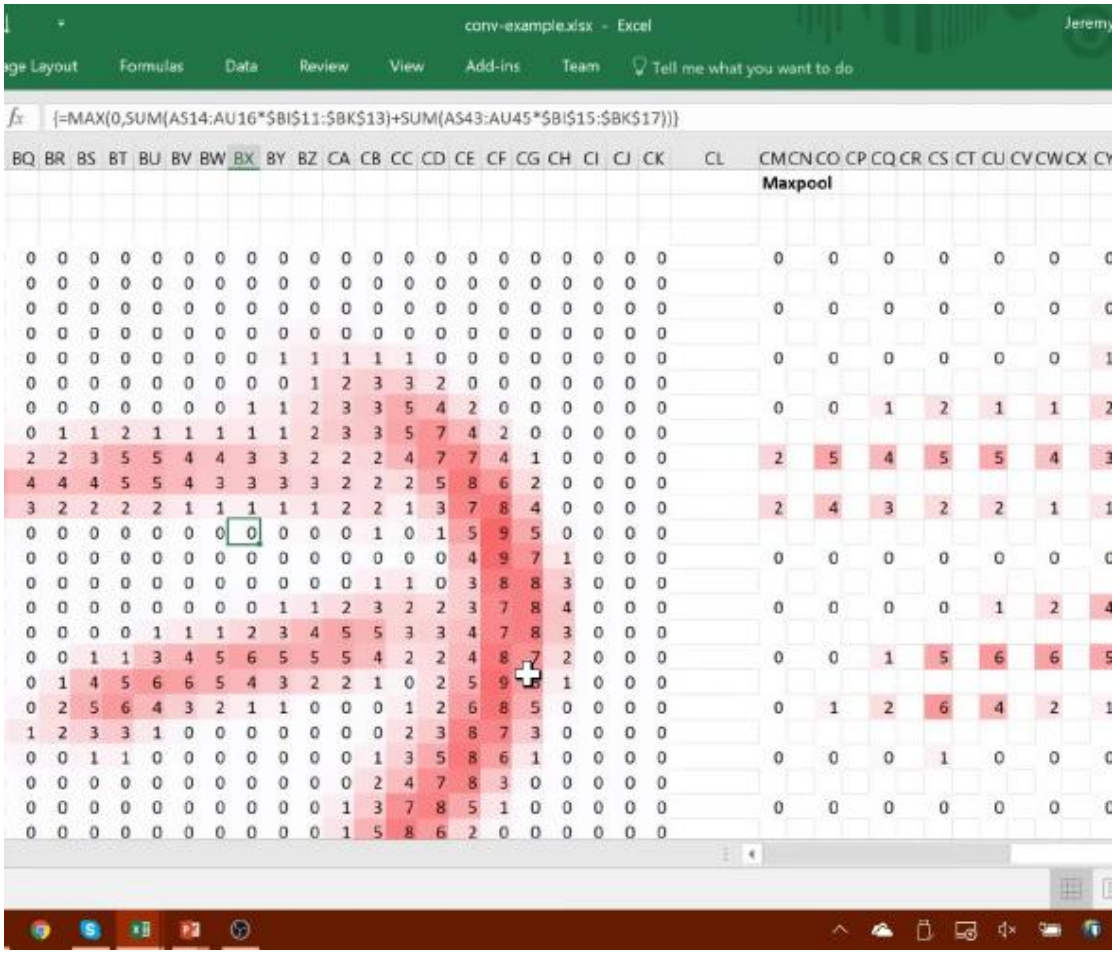
[(lessons/lesson1.html)](lessons/lesson1.html)



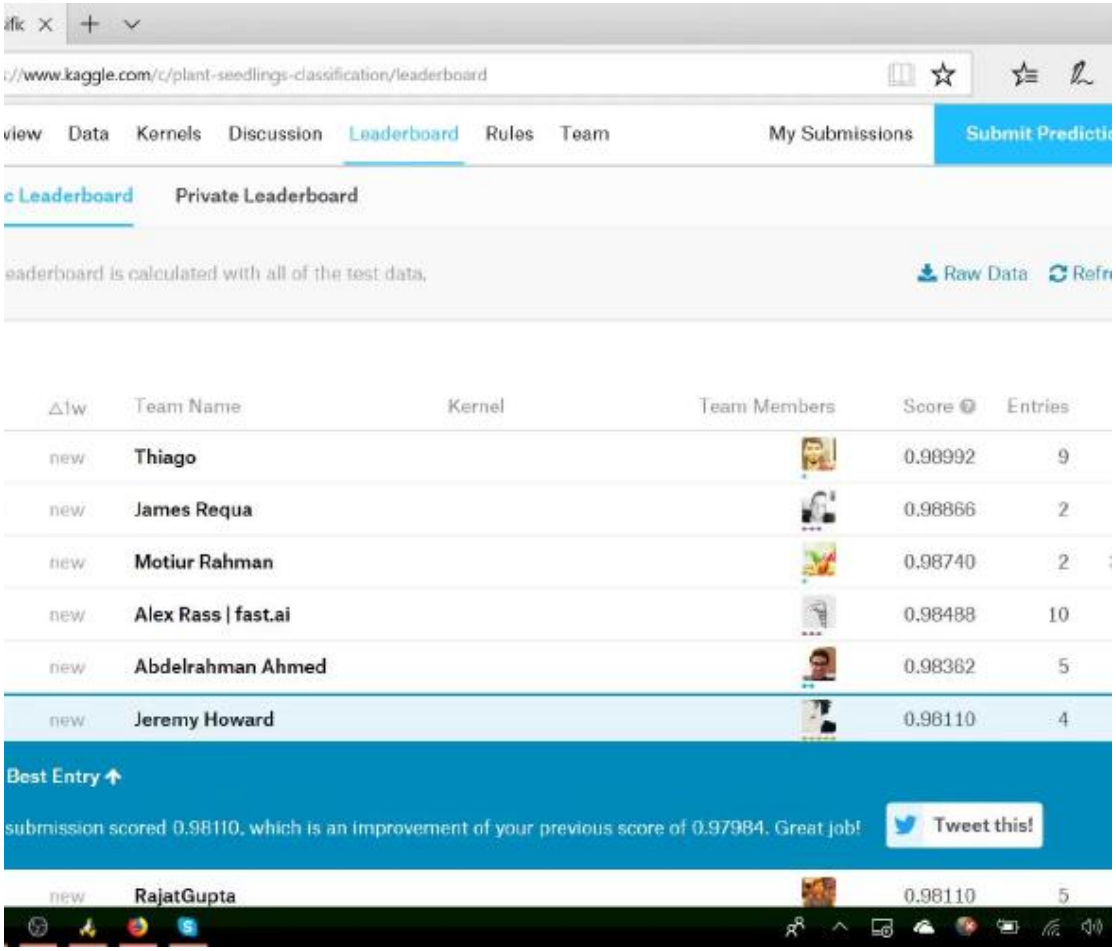
(lessons/lesson2.html)



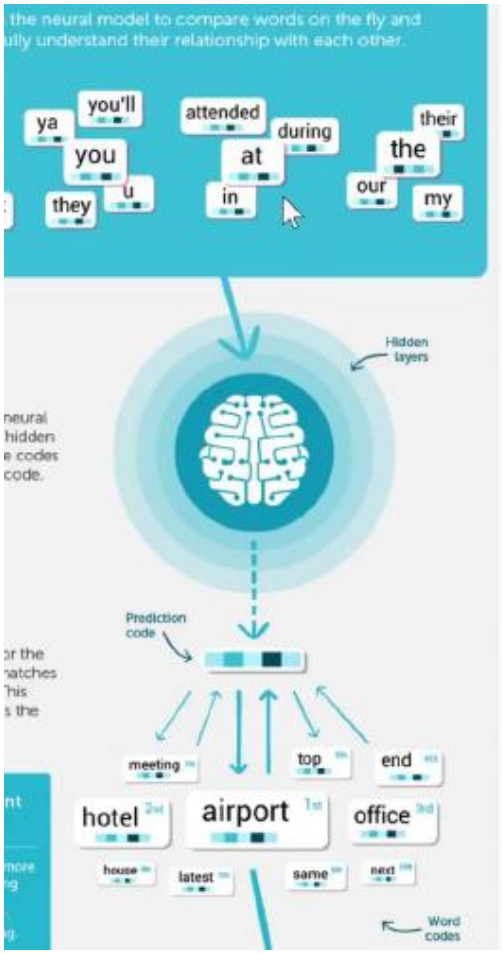
(lessons/lesson3.html)



(lessons/lesson4.html)



(lessons/lesson5.html)



(lessons/lesson6.html)

Proof. Omitted.

Lemma 0.1. *Let $\mathcal{C}$ be a set of the construction.*
Let $\mathcal{C}$ be a gerber covering. Let $\mathcal{F}$ be a quasi-coheren
have to show that

$$\mathcal{O}_{\mathcal{O}_X} = \mathcal{O}_X(\mathcal{L})$$

.

Proof. This is an algebraic space with the compositio
have

$$\mathcal{O}_X(\mathcal{F}) = \{morph_1 \times_{\mathcal{O}_X} (\mathcal{G},$$

where $\mathcal{G}$ defines an isomorphism $\mathcal{F} \to \mathcal{F}$ of $\mathcal{O}$-modules

Lemma 0.2. *This is an integer $\mathcal{Z}$ is injective.*

Proof. See Spaces, Lemma ??.

Lemma 0.3. *Let S be a scheme. Let X be a scher*
covering. Let $\mathcal{U} \subset X$ be a canonical and locally of fini
Let X be a scheme which is equal to the formal compl
The following to the construction of the lemma follow
Let X be a scheme. Let X be a scheme covering. Let

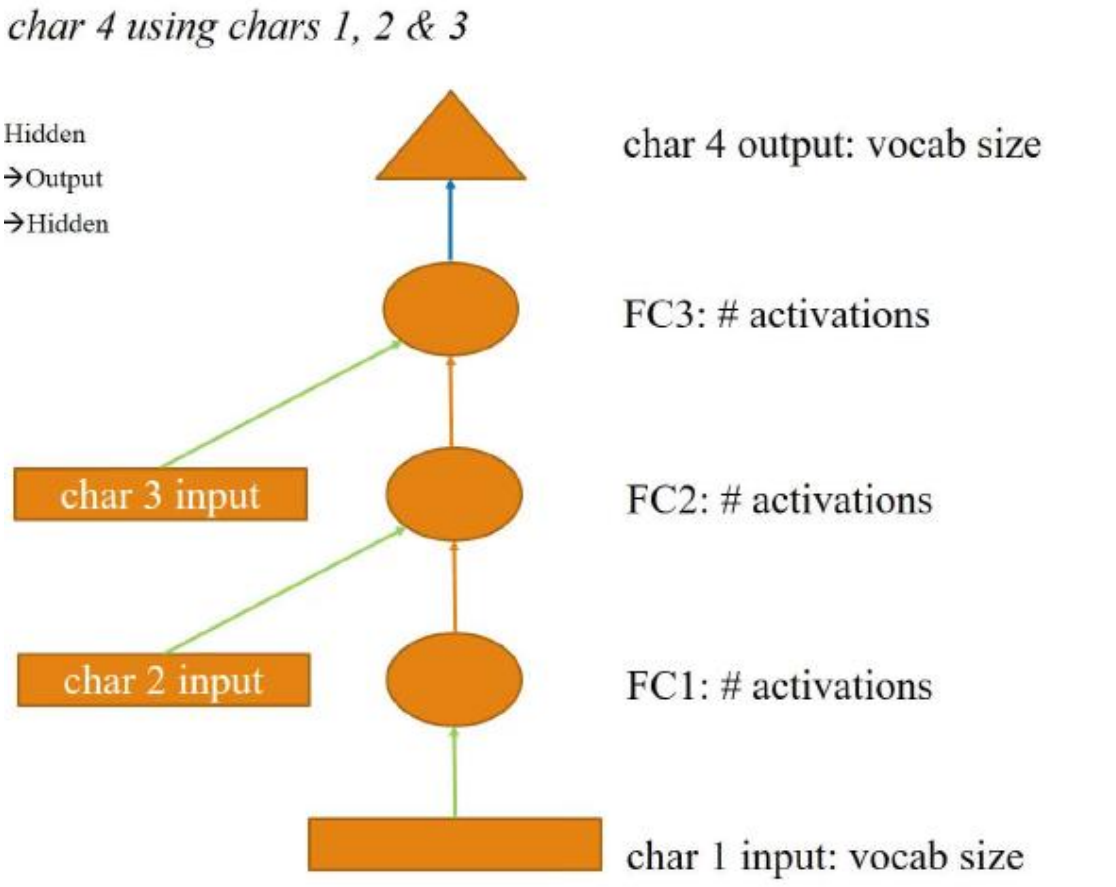
$$b : X \to Y' \to Y \to Y \to Y' \times_X$$

be a morphism of algebraic spaces over S and Y.

Proof. Let X be a nonzero scheme of X. Let X be an
quasi-coherent sheaf of $\mathcal{O}_X$-modules. The following ar
(1) $\mathcal{F}$ is an algebraic space over S.
(2) If X is an affine open covering.

Consider a common structure on X and X the functo
finite type.

```
\begin{proof} We may assume that $\mathcal{I}$ is a
$\mathcal{C}$. \item Given a morphism $\Delta : \m
is an injective and let $\mathfrak q$ be an abelian sh
$\mathcal{F}$ be a fibered complex. Let $\mathcal{F
```



(lessons/lesson7.html)

RESOURCES

FORUMS

Ask and answer questions on the forums - most discussion happens here

(http://forums.fast.ai/)

WIKI

Be sure to check the wiki first if you have a question - and help contribute too

(http://wiki.fast.ai/)

FAST.AI BLOG

fast.ai announcements and articles will be posted to the blog

(http://www.fast.ai/)

PART 2

When you're done here, head over there!

(http://course.fast.ai/part2.html)

WHAT YOU NEED TO SUCCEED

Pragmatic Coding 95%

Tenacity 85%

An Open Mind 80%

High School Math 60%

WHAT OUR GRADUATES SAY / VIEW ALL (TESTIMONIALS.HTML)

I've tried (and if I'm honest) failed to scale the steep deep learning curve many times. I realise with hindsight it was the equations that were preventing me from becoming a deep learning practitioner. Jeremy brought me up to speed with the state-of-the-art, and within two weeks I was in the top half of the leaderboard for three Kaggle competitions.

- Christopher Kelly , CEO- Nourish, Balance, Thrive

If you are looking to venture into the Deep learnir field, look no further and take this course. It is ver hands-on and adopts a top-down approach, whic means everyone irrespective of varying knowled can get started with implementing Deep learning models immediately. Another major factor why th course is very appealing is its emphasis on social relevance. That is, how can we use this awesome technology to serve the world better?

- Sravya Tirukkovalur , Vice President, Apache Sentry

PARTICIPANTS FROM:

OpenAI

PLANET LABS

salesforce

SINGULARITY UNIVERSITY

UCSF University of Calif San Francisco

(/INDEX.HTML)

PAGES

Home (/index.html)
Lessons (/lessons/lessons.html)
Follow our blog (http://www.fast.ai)
Contact us (/contact.html)

CONTACT US

Email: info@fast.ai

(https://twitter.com/fastdotai)