

# 第一次用AWS裝Jupyter就上手

方宜晟

I-Sheng Fang

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看到標題我想你一定有兩個疑問

如果沒有的話，你可以跳過這幾頁

什麼是AWS ?



Amazon  
Web  
Services

# 目前主流的雲端運算平台之一

至於有那些公司採用呢？

族繁不及備載

什麼是Jupyter ?

# 最適合正常人使用的Python編輯器

當然你可以用Vim或Terminal  
只是你高達87%機率是Geek  
也就是死宅

那為什麼要摻在一起做瀨尿牛丸呢？

小弟窮，沒有自己的筆電

然後應數系電腦室的電腦…

# 小弟宅，想用手機看程式

還能秀Terminal讓別人覺得你好像很厲害

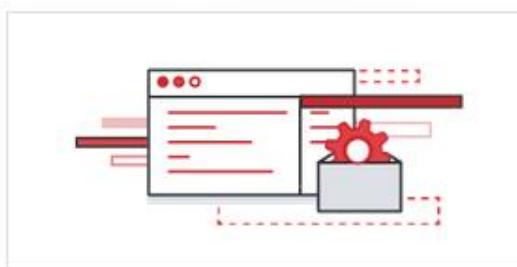
小弟魯，想趁機學學雲端

不然應徵工作時被認定不是即戰力很方便

那廢話不多說，我們開始吧

首先，你要辦個AWS帳號

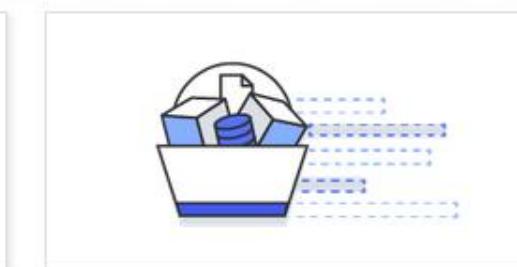
## 了解領導業界的企業如何在 AWS 上現代化 Windows Server 應用程式

[下載白皮書 »](#)[開始免費使用 AWS](#)[建立免費帳戶](#)**Amazon DynamoDB**每秒 2,500 個請求和 25 GB 的儲存容量和吞吐量  
2 千萬個請求[查看 AWS 免費方案詳情 »](#)

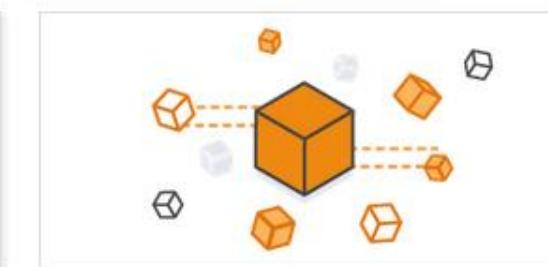
**入門**  
了解如何在最短的時間內開始使用 AWS



**AWS 定價**  
優化變動或穩定工作負載的成本



**AWS 免費方案**  
免費獲得 12 個月的 AWS 實作經驗



**芝加哥 AWS 高峰會**  
查看芝加哥 AWS 高峰會的所有宣告

### 廣泛且深入的核心雲端基礎設施服務

# 不解釋

好啦，我還是會帶大家走一次



## 登入或建立 AWS 帳戶

您的電子郵件為何 (適用於行動帳戶的手機) ?

我的電子郵件地址或手機號碼是 :

我是一個新用戶。

我是一個老用戶

我的密碼是:

使用我們的安全伺服器登入 

[忘記密碼？](#)

進一步了解 [AWS Identity and Access Management](#) 和 [AWS Multi-Factor Authentication](#) 等為 AWS 帳戶提供額外安全性的功能。檢視完整的 [AWS 免費用量方案優惠條款](#)。

全新 AWS 帳戶包含 -

### 12 個月 AWS 免費組合試用

Amazon EC2：每月 750 小時的 Windows 及 Linux t2.micro 使用時間

Amazon S3：5 GB 儲存空間

Amazon RDS：每月 750 小時的微型資料庫實體使用時間

Amazon DynamoDB：25 GB 儲存空間，每月最多 2 億筆請求

### AWS Basic Support 內容

客戶服務：24x7x365

支援論壇

說明文件、白皮書、最佳做法指南

請造訪 [aws.amazon.com/free](http://aws.amazon.com/free) 參閱完整優惠條款

### 關於 Amazon.com 登入

Amazon Web Services 會使用您的 Amazon.com 帳戶資訊來識別和允許您存取 Amazon Web Services。使用此網站受到下方連結之使用條款和隱私權政策的規範。除非是從 AWS 加值型經銷商購買 Amazon Web Services 產品和服務，否則使用這些產品和服務受到下方連結之 AWS 客戶協議的規範。

是的，有十二個月免費試用

這也是我採用的原因之一

請填入你的email

點我是新用戶

然後按登入



## 登入資料

使用下方表單建立可用於 AWS 以及 Amazon.com 的登入資料。

我的姓名為：

我的電子郵件地址為：

再次鍵入：

輸入新密碼：

再次鍵入：

**創建帳戶**

---

### 關於 Amazon.com 登入

Amazon Web Services 會使用您的 Amazon.com 帳戶資訊來識別和允許您存取 Amazon Web Services。使用此網站受到下方連結之使用條款和隱私權政策的規範。除非是從 AWS 加值型經銷商購買 Amazon Web Services 產品和服務，否則使用這些產品和服務受到下方連結之 AWS 客戶協議的規範。

[使用條款](#) [隱私權政策](#) [AWS 客戶協議](#) © 1996-2016, Amazon.com, Inc. 或其附屬公司

An  company

請填入你的email

點我是新用戶

然後按登入



## 登入資料

使用下方表單建立可用於 AWS 以及 Amazon.com 的登入資料。

我的姓名為：

我的電子郵件地址為：

再次鍵入：

輸入新密碼：

再次鍵入：

### 關於 Amazon.com 登入

Amazon Web Services 會使用您的 Amazon.com 帳戶資訊來識別和允許您存取 Amazon Web Services。使用此網站受到下方連結之使用條款和隱私權政策的規範。除非是從 AWS 加值型經銷商購買 Amazon Web Services 產品和服務，否則使用這些產品和服務受到下方連結之 AWS 客戶協議的規範。

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An company

## 聯絡資訊

 公司帳戶  個人帳戶

\* 必要欄位

全名\*

國家\*

地址\*

城市\*

州/省或地區\*

郵遞區號\*

電話號碼\*

安全性檢查 [重新整理影像](#)

請輸入上面所顯示的字元

# 接下來會要填信用卡

跟爸媽借吧  
或是辦張郵局visa卡  
我們應該是不會用超出額度的

再來是電話身分認證

支援方案選免費

搞定，來開主機吧



AWS

Services

Edit

I-Sheng Fang

Oregon

Support

History

EC2

Billing

## All AWS Services

API Gateway

Compute

AppStream

Storage &amp; Content Delivery

AWS IoT

Database

Certificate Manager

Networking

CloudFormation

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Security &amp; Identity

CloudTrail

Analytics

CloudWatch

Internet of Things

CodeCommit

Mobile Services

CodeDeploy

Application Services

CodePipeline

Enterprise Applications

Cognito

Game Development

Config

Data Pipeline

Device Farm

Direct Connect

Directory Service

DMS

DynamoDB

EC2

EC2 Container Service

Elastic Beanstalk

Elastic File System

Elastic Transcoder

ElastiCache

Elasticsearch Service

EMR

GameLift

Glacier

IAM

Inspector

Kinesis

Lambda

Machine Learning

Mobile Analytics

Mobile Hub

OpsWorks

RDS

Redshift

Route 53

S3

Service Catalog

SES

Snowball

SNS

SQS

Storage Gateway

SWF

Trusted Advisor

VPC

WAF

WorkDocs

WorkMail

WorkSpaces

請點開Services裡面選擇EC2

**EC2 Dashboard**

Events

Tags

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**INSTANCES**

Instances

Spot Requests

Reserved Instances

Scheduled Instances

Dedicated Hosts

**IMAGES**

AMIs

Bundle Tasks

**ELASTIC BLOCK STORE**

Volumes

Snapshots

**NETWORK & SECURITY**

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

**LOAD BALANCING**

Load Balancers

**Resources**

You are using the following Amazon EC2 resources in the US West (Oregon) region:

1 Running Instances

0 Dedicated Hosts

1 Volumes

1 Key Pairs

0 Placement Groups

0 Elastic IPs

0 Snapshots

0 Load Balancers

4 Security Groups

Build and run distributed, fault-tolerant applications in the cloud with [Amazon Simple Workflow Service](#).**Create Instance**

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

**Launch Instance**

Note: Your instances will launch in the US West (Oregon) region

**Service Health****Service Status:**✓ US West (Oregon):

This service is operating normally

**Availability Zone Status:**✓ us-west-2a:

Availability zone is operating normally

✓ us-west-2b:**Scheduled Events****US West (Oregon):**

No events

US East (N. Virginia)

US West (N. California)

**US West (Oregon)**

EU (Ireland)

EU (Frankfurt)

Asia Pacific (Tokyo)

Asia Pacific (Seoul)

Asia Pacific (Singapore)

Asia Pacific (Sydney)

Asia Pacific (Mumbai)

South America (São Paulo)

[Pricing](#)[Contact Us](#)**AWS Marketplace**Find **free software trial** products in the AWS Marketplace from the [EC2 Launch Wizard](#).  
Or try these popular AMIs:[Tableau Server \(10 users\)](#)

Provided by Tableau

Rating ★★★★☆

Pay by the hour for Tableau software and AWS usage

[View all Business Intelligence](#)

請點開右上角你的名子跟Sopport中間的選單

選擇Tokyo (因為比較近)

點開中間那個Launch Instance



1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Tag Instance

6. Configure Security Group

7. Review

[Cancel and Exit](#)

## Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

### Quick Start

◀ ▶ 1 to 25 of 25 AMIs

My AMIs

**Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-374db956**[Select](#)

AWS Marketplace

Amazon Linux

Free tier eligible

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

64-bit

Community AMIs

Root device type: ebs Virtualization type: hvm

 Free tier only **Red Hat Enterprise Linux 7.2 (HVM), SSD Volume Type - ami-0dd8f963**[Select](#)

Red Hat

Free tier eligible

Red Hat Enterprise Linux version 7.2 (HVM), EBS General Purpose (SSD) Volume Type

64-bit

**SUSE Linux Enterprise Server 12 SP1 (HVM), SSD Volume Type - ami-f8220896**[Select](#)

SUSE Linux

Free tier eligible

SUSE Linux Enterprise Server 12 Service Pack 1 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.

64-bit

Root device type: ebs Virtualization type: hvm

**Ubuntu Server 14.04 LTS (HVM), SSD Volume Type - ami-a21529cc**[Select](#)

Ubuntu

Free tier eligible

Ubuntu Server 14.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

64-bit

選擇Ubuntu Server 14.04 LTS



1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Tag Instance

6. Configure Security Group

7. Review

## Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types

Current generation

Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	m4.large	2	8	EBS only	Yes	Moderate
<input type="checkbox"/>	General purpose	m4.xlarge	4	16	EBS only	Yes	High
<input type="checkbox"/>	General purpose	m4.2xlarge	8	32	EBS only	Yes	High

Cancel

Previous

Review and Launch

Next: Configure Instance Details

不用想了，點免費的那個

然後點Next: Configure Instance Details

[1. Choose AMI](#)[2. Choose Instance Type](#)[3. Configure Instance](#)[4. Add Storage](#)[5. Tag Instance](#)[6. Configure Security Group](#)[7. Review](#)

## Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

**Number of instances** ⓘ

1

[Launch into Auto Scaling Group](#) ⓘ**Purchasing option** ⓘ Request Spot instances**Network** ⓘ

vpc-e055ba84 (172.31.0.0/16) (default)

[C Create new VPC](#)**Subnet** ⓘ

No preference (default subnet in any Availability Zone)

[Create new subnet](#)**Auto-assign Public IP** ⓘ

Use subnet setting (Enable)

**IAM role** ⓘ

None

[C Create new IAM role](#)**Shutdown behavior** ⓘ

Stop

**Enable termination protection** ⓘ Protect against accidental termination**Monitoring** ⓘ Enable CloudWatch detailed monitoring

Additional charges apply.

**Tenancy** ⓘ

Shared - Run a shared hardware instance

Additional charges will apply for dedicated tenancy.

[Advanced Details](#)[Cancel](#)[Previous](#)[Review and Launch](#)[Next: Add Storage](#)

這邊對我們這些菜逼八來說不重要

點Next: Add Storage



1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Tag Instance

6. Configure Security Group

7. Review

## Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type <small>i</small>	Device <small>i</small>	Snapshot <small>i</small>	Size (GiB) <small>i</small>	Volume Type <small>i</small>	IOPS <small>i</small>	Throughput (MB/s) <small>i</small>	Delete on Termination <small>i</small>	Encrypted <small>i</small>
Root	/dev/sda1	snap-e10a33de	15	General Purpose SSD (GP2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

[Add New Volume](#)

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

[Cancel](#)[Previous](#)[Review and Launch](#)[Next: Tag Instance](#)

30GB以內是免費的，填自己喜歡的數字吧

點Next: Tag Instance

[1. Choose AMI](#)[2. Choose Instance Type](#)[3. Configure Instance](#)[4. Add Storage](#)[5. Tag Instance](#)[6. Configure Security Group](#)[7. Review](#)

## Step 5: Tag Instance

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. [Learn more](#) about tagging your Amazon EC2 resources.

**Key** (127 characters maximum)**Value** (255 characters maximum) Name**Create Tag**

(Up to 50 tags maximum)

[Cancel](#)[Previous](#)[Review and Launch](#)[Next: Configure Security Group](#)

這邊對我們這些菜逼八來說不重要

點Next: Configure Security Group

# 注意

接下來沒弄好你就沒辦法用網頁登進這個主機

[1. Choose AMI](#)[2. Choose Instance Type](#)[3. Configure Instance](#)[4. Add Storage](#)[5. Tag Instance](#)[6. Configure Security Group](#)[7. Review](#)

## Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

**Assign a security group:**  Create a **new** security group

Select an **existing** security group

**Security group name:**

**Description:**

Type i

SSH

Protocol i

TCP

Port Range i

22

Source i

Anywhere

0.0.0.0/0



**Add Rule**



### Warning

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

[Cancel](#)

[Previous](#)

[Review and Launch](#)

請把下面的連線規則做成像這樣

Type <i>i</i>	Protocol <i>i</i>	Port Range <i>i</i>	Source <i>i</i>	
SSH	TCP	22	Anywhere <input type="button" value="▼"/> 0.0.0.0/0	<input type="button" value="X"/>
HTTPS	TCP	443	Anywhere <input type="button" value="▼"/> 0.0.0.0/0	<input type="button" value="X"/>
Custom TCP Rule <input type="button" value="▼"/>	TCP	8888	Anywhere <input type="button" value="▼"/> 0.0.0.0/0	<input type="button" value="X"/>

**Add Rule**

然後Review and Luanch



1. Choose AMI    2. Choose Instance Type    3. Configure Instance    4. Add Storage    5. Tag Instance    6. Configure Security Group    7. Review

## Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

**⚠ Improve your instances' security. Your security group, Jupyter for Python3.5 on AWS, is open to the world.**

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.

You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

### AMI Details

[Edit AMI](#)**Ubuntu Server 14.04 LTS (HVM), SSD Volume Type - ami-a21529cc**

Free tier eligible

Ubuntu Server 14.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root Device Type: ebs    Virtualization type: hvm

### Instance Type

[Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

### Security Groups

[Edit security groups](#)**Security group name**

Jupyter for Python3.5 on AWS

**Description**

as name

[Cancel](#) [Previous](#) **Launch**

# Launch



## Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.



### Improve your instances' security

Your instances may be accessible from the Internet.

You can also open additional ports in your security groups.

#### AMI Details



##### Ubuntu Server 14.04 LTS (HVM)

Free tier eligible

Ubuntu Server 14.04 LTS (HVM), EBS

Root Device Type: ebs Virtualization type: HVM

#### Instance Type

Instance Type	ECUs	VCPUs
t2.micro	Variable	1

#### Security Groups

Security group name	Jupyter for PyTorch
Description	as name

### Select an existing key pair or create a new key pair



A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Choose an existing key pair

Select a key pair

No key pairs found

#### No key pairs found

You don't have any key pairs. Please create a new key pair by selecting the **Create a new key pair** option above to continue.

Cancel

Launch Instances

Cancel

Previous

Launch

怎麼辦，不用怕

請選擇 Create a new key pair

然後取一個你喜歡的名子

點選 Download Key Pair

檔案記得收好，不要給別人



AWS

Services

Edit

I-Sheng Fang

Tokyo

Support

[EC2 Dashboard](#)  
[Events](#)  
[Tags](#)  
[Reports](#)  
[Limits](#)[INSTANCES](#)[Instances](#)[Spot Requests](#)[Reserved Instances](#)[Dedicated Hosts](#)[IMAGES](#)[AMIs](#)[Bundle Tasks](#)[-](#)[ELASTIC BLOCK STORE](#)[Volumes](#)[Snapshots](#)[-](#)[NETWORK & SECURITY](#)[Security Groups](#)[Elastic IPs](#)[Placement Groups](#)[Key Pairs](#)[Network Interfaces](#)[LOAD BALANCING](#)[Load Balancers](#)[Launch Instance](#)[Connect](#)[Actions](#)[Filter by tags and attributes or search by keyword](#)

1 to 1 of 1

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS	Publ
	i-0b55bd8c36fb182e1	t2.micro	ap-northeast-1a	<span>running</span>	<span>Initializing</span>	None	ec2-52-68-205-95.ap-no...	52.68

Instance: [i-0b55bd8c36fb182e1](#) Public DNS: [ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com](#)[Description](#)[Status Checks](#)[Monitoring](#)[Tags](#)

Instance ID: i-0b55bd8c36fb182e1

Public DNS: ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com

Instance state: running

Public IP: 52.68.205.95

Instance type: t2.micro

Elastic IPs:

Private DNS: ip-172-31-24-139.ap-northeast-

Availability zone: ap-northeast-1a

[Feedback](#)[English](#)

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等一下讓它安裝系統吧

在這同時，我們要準備好登入



putty

# 請去下載PuTTY

# 還有PuTTYgen

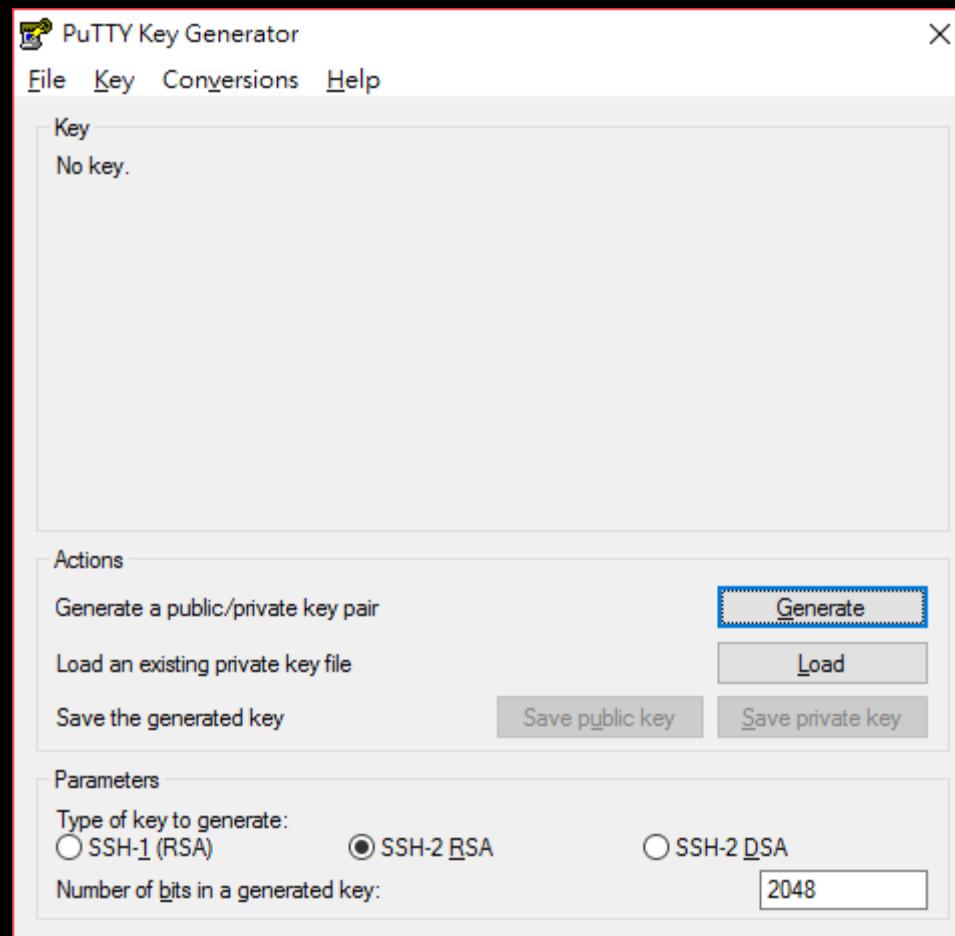


puttygen

在同一個網頁

Google “PuTTY” 不到一分鐘就能找到的

打開PuTTYgen



點選Load，把你剛剛下載下來的檔案放進去

記得點all file才看的到pem檔

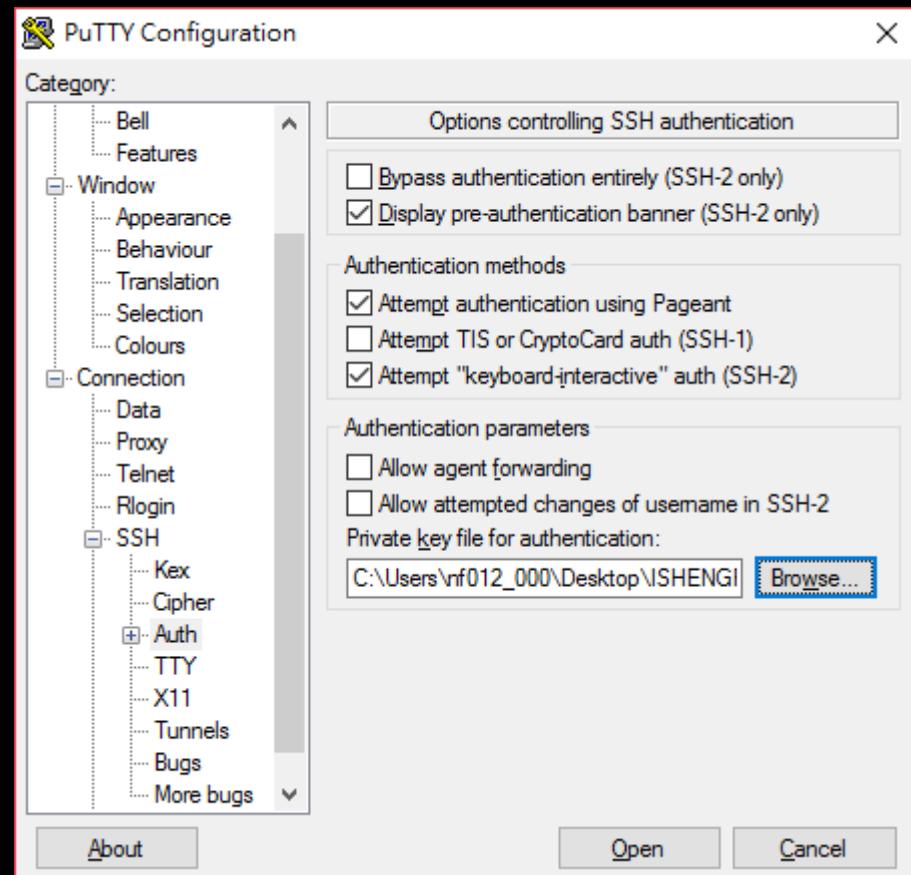
點選Save private key

存一個你喜歡的檔名吧

然後記得收好

打開PuTTY

點開左側欄的SSH裡的Auth



點開Browse...

選取你用PuTTYgen存的檔案

然後點選左側欄裡面的Session

在這同時，我們的雲端虛擬機器應該也安裝好了

在你的機器欄點右鍵選擇Connect



AWS

Services

Edit

I-Sheng Fang

Tokyo

Support

[EC2 Dashboard](#)  
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[Tags](#)  
[Reports](#)  
[Limits](#)[INSTANCES](#)[Instances](#)[Spot Requests](#)[Reserved Instances](#)[Dedicated Hosts](#)[IMAGES](#)[AMIs](#)[Bundle Tasks](#)[ELASTIC BLOCK STORE](#)[Volumes](#)[Snapshots](#)[NETWORK & SECURITY](#)[Security Groups](#)[Elastic IPs](#)[Placement Groups](#)[Key Pairs](#)[Network Interfaces](#)[LOAD BALANCING](#)[Load Balancers](#)[Launch Instance](#)[Connect](#)[Actions](#) Filter by tags and attributes or search by keyword

K &lt; 1 to 1 of 1 &gt; K

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS	Publ
	i-0b55bd8c36fb182e1	t2.micro		<span>running</span>	<span>2/2 checks ...</span>	None	ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com	52.68

- Connect
- Get Windows Password
- Launch More Like This
- Instance State
- Instance Settings
- Image
- Networking
- CloudWatch Monitoring

Instance: i-0b55bd8c36fb182e1 Public DNS: ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com

[Feedback](#)[English](#)

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複製我反白的這段



EC2 Dashboard  
Events  
Tags  
Reports  
Limits

## INSTANCES

Instances

Spot Requests  
Reserved Instances  
Dedicated Hosts

## IMAGES

AMIs  
Bundle Tasks

## ELASTIC BLOCK STORE

Volumes  
Snapshots

## NETWORK & SECURITY

Security Groups  
Elastic IPs  
Placement Groups  
Key Pairs  
Network Interfaces

## LOAD BALANCING

Load Balancers

Launch Instance



Filter by



Name



Type

## Connect To Your Instance

I would like to connect with

- A standalone SSH client  
 A Java SSH Client directly from my browser (Java required)

To access your instance:

1. Open an SSH client. (find out how to [connect using PuTTY](#))
2. Locate your private key file (ISHENGFANG.pem). The wizard automatically detects the key you used to launch the instance.
3. Your key must not be publicly viewable for SSH to work. Use this command if needed:

```
chmod 400 ISHENGFANG.pem
```

4. Connect to your instance using its Public DNS:

`ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com`

Example:

```
ssh -i "ISHENGFANG.pem" ubuntu@ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com
```

Please note that in most cases the username above will be correct, however please ensure that you read your AMI usage instructions to ensure that the AMI owner has not changed the default AMI username.

If you need any assistance connecting to your instance, please see our [connection documentation](#).

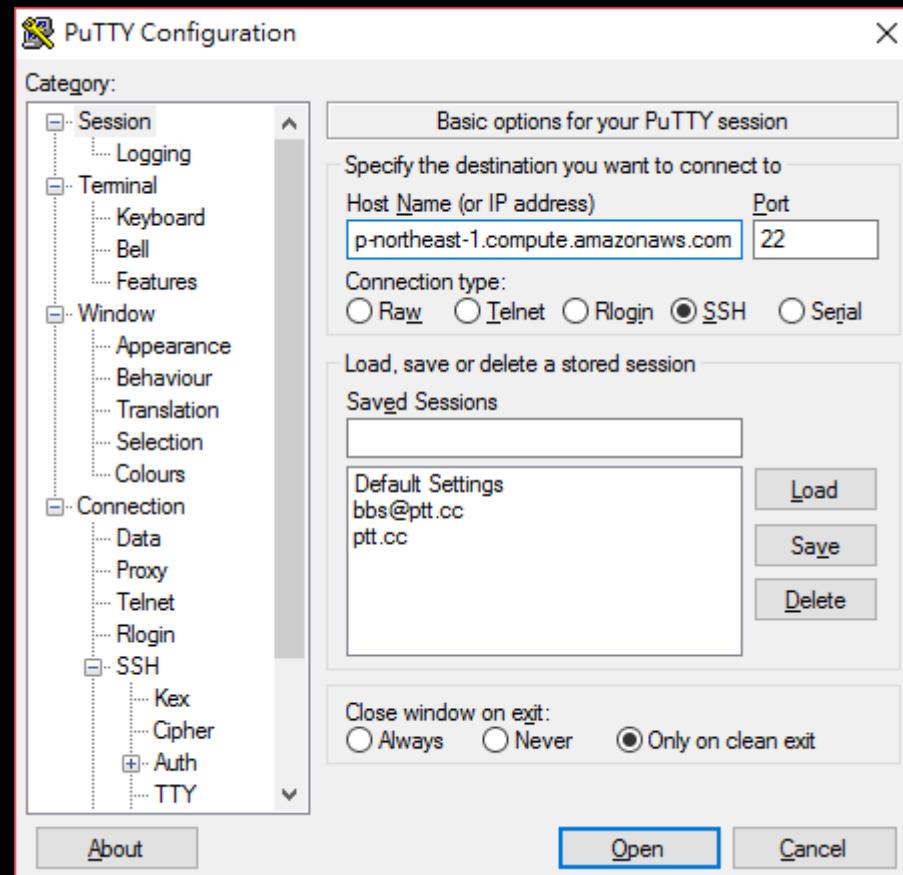
**Close**

Instance: i-0b55bd8c36fb182e1

Public DNS: ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com



貼到Host Name



點Open

 ubuntu@ip-172-31-24-139:~

— □ ×

System information as of Mon Sep 12 16:22:23 UTC 2016

System load: 0.08                      Memory usage: 5%      Processes: 81  
Usage of /: 9.9% of 7.74GB      Swap usage: 0%      Users logged in: 0

Graph this data and manage this system at:  
<https://landscape.canonical.com/>

Get cloud support with Ubuntu Advantage Cloud Guest:  
<http://www.ubuntu.com/business/services/cloud>

0 packages can be updated.  
0 updates are security updates.

The programs included with the Ubuntu system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/\*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by  
applicable law.

ubuntu@ip-172-31-24-139:~\$

我們成功遠端登入了

現在我們開始安裝Jupyter Notebook吧

先去Anaconda官網吧

[Download for Windows](#)

[Download for OSX](#)

[Download for Linux](#)

## Anaconda 4.1.1

### For Linux

Anaconda is BSD licensed which gives you permission to use Anaconda commercially and for redistribution.

[Changelog](#)

1. Download the installer
2. Optional: Verify data integrity with [MD5](#) or [SHA-256](#)  
[More info](#)
3. In your terminal window type one of the below and follow the instructions:

**Python 3.5 version**

```
bash Anaconda3-4.1.1-Linux-x86_64.sh
```

**Python 2.7 version**

```
bash Anaconda2-4.1.1-Linux-x86_64.sh
```

Python 3.5 version

**64-BIT INSTALLER (405M)**

用新分頁開啟連結 (I)

用新視窗開啟連結 (W)

用新隱私視窗開啟連結 (P)

此連結加入書籤 (L)

連結另存新檔 (K)...

將連結儲存至 Pocket (O)

複製連結網址 (A)

以 Google 搜尋「64-Bit Installe...」(S)

檢測元素 (Q)

Adblock Plus：阻擋圖片...

**32-BIT INSTAL**

**64-BIT INSTALLER (398M)**

**32-BIT INSTALLER (324M)**

複製鏈結網址

在PuTTY上打wget後

空一格點右鍵按enter

像這樣

wget https://repo.continuum.io/archive/Anaconda3-4.1.1-Linux-x86\_64.sh

ubuntu@ip-172-31-24-139:~

0 updates are security updates.

The programs included with the Ubuntu system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/\*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by  
applicable law.

```
ubuntu@ip-172-31-24-139:~$ wget https://repo.continuum.io/archive/Anaconda3-4.1.  
1-Linux-x86_64.sh  
--2016-09-12 17:07:35-- https://repo.continuum.io/archive/Anaconda3-4.1.1-Linux  
-x86_64.sh  
Resolving repo.continuum.io (repo.continuum.io) ... 50.16.198.140, 54.204.1.243,  
54.225.68.13, ...  
Connecting to repo.continuum.io (repo.continuum.io)|50.16.198.140|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 425991075 (406M) [application/octet-stream]  
Saving to: 'Anaconda3-4.1.1-Linux-x86_64.sh'  
  
12% [==>] 53,402,280 4.91MB/s eta 1m 49s
```

等他下載完吧

回到Anaconda官網

[Download for Windows](#)[Download for OSX](#)[Download for Linux](#)

## Anaconda 4.1.1

### For Linux

Anaconda is BSD licensed which gives you permission to use Anaconda commercially and for redistribution.

#### [Changelog ↗](#)

1. Download the installer
2. Optional: Verify data integrity with [MD5](#) or [SHA-256 ↗](#)  
[More info ↗](#)
3. In your terminal window type one of the below and follow the instructions:  
**Python 3.5 version**

```
bash Anaconda3-4.1.1-Linux-x86_64.sh
```

#### **Python 2.7 version**

```
bash Anaconda2-4.1.1-Linux-x86_64.sh
```

NOTE: Include the "bash" command even if you are not using the bash shell.

Python 3.5 version

**64-BIT INSTALLER (405M)**

**32-BIT INSTALLER (328M)**

Python 2.7 version

**64-BIT INSTALLER (398M)**

**32-BIT INSTALLER (324M)**

For older versions of Anaconda installers, see the [Anaconda installer archive ↗](#)

For long-term support of the packages found in the Anaconda archives, please [contact us](#)

複製我反白的部分

在PuTTY上點右鍵

按enter

ubuntu@ip-172-31-24-139: ~



the exact distribution terms for each program are described in the individual files in /usr/share/doc/\*/\*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

```
ubuntu@ip-172-31-24-139:~$ wget https://repo.continuum.io/archive/Anaconda3-4.1.1-Linux-x86_64.sh
--2016-09-12 17:07:35--  https://repo.continuum.io/archive/Anaconda3-4.1.1-Linux-x86_64.sh
Resolving repo.continuum.io (repo.continuum.io) ... 50.16.198.140, 54.204.1.243,
54.225.68.13, ...
Connecting to repo.continuum.io (repo.continuum.io)|50.16.198.140|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 425991075 (406M) [application/octet-stream]
Saving to: 'Anaconda3-4.1.1-Linux-x86_64.sh'

100%[=====] 425,991,075 4.68MB/s  in 88s

2016-09-12 17:09:04 (4.63 MB/s) - 'Anaconda3-4.1.1-Linux-x86_64.sh' saved [425991075/425991075]
```

```
ubuntu@ip-172-31-24-139:~$ bash Anaconda3-4.1.1-Linux-x86_64.sh
```

之後一路Enter或Yes

你懂的

等他安裝完吧

請輸入 which python

檢查一下是不是用Anaconda跑python

高達87%的機率是出現

/usr/bin/python

請輸入 source .bashrc

讓電腦重新抓抓看

高達87%的機率是出現

/home/ubuntu/anaconda/bin/python

快好了，我們要開始設定我們的  
notebook了

請輸入 ipython 後按 Enter

打開ipython程式

請輸入from IPython.lib import passwd  
後按enter

再輸入passwd()

後按enter

Thank you for installing Anaconda3!

Share your notebooks and packages on Anaconda Cloud!

Sign up for free: <https://anaconda.org>

```
ubuntu@ip-172-31-24-139:~$ export PATH=/home/ubuntu/anaconda3/bin:$PATH
```

```
ubuntu@ip-172-31-24-139:~$ which python
```

```
/home/ubuntu/anaconda3/bin/python
```

```
ubuntu@ip-172-31-24-139:~$ ipython
```

```
Python 3.5.2 |Anaconda 4.1.1 (64-bit)| (default, Jul 2 2016, 17:53:06)
```

```
Type "copyright", "credits" or "license" for more information.
```

```
IPython 4.2.0 -- An enhanced Interactive Python.
```

```
?          -> Introduction and overview of IPython's features.
```

```
%quickref -> Quick reference.
```

```
help       -> Python's own help system.
```

```
object?    -> Details about 'object', use 'object??' for extra details.
```

```
In [1]: from IPython.lib import passwd
```

```
In [2]: passwd()
```

```
Enter password: █
```

輸入你的登入密碼吧

把out[2]:後面那段記起來吧

輸入exit離開ipython

現在我們開始製作設定檔

輸入

jupyter notebook --generate-config

```
Command 'ipython' from package 'ipython' (universe)
ipyhton: command not found
ubuntu@ip-172-31-24-139:~$ ipython
Python 3.5.2 |Anaconda 4.1.1 (64-bit)| (default, Jul  2 2016, 17:53:06)
Type "copyright", "credits" or "license" for more information.

IPython 4.2.0 -- An enhanced Interactive Python.
?          -> Introduction and overview of IPython's features.
%quickref -> Quick reference.
help       -> Python's own help system.
object?    -> Details about 'object', use 'object??' for extra details.

In [1]: from IPython.lib import passwd

In [2]: passwd()
Enter password:
Verify password:
Out[2]: 'sha1:9272c5219552:371ceb5fa3d6ab839684a03930f512d537824189'

In [3]: exit
ubuntu@ip-172-31-24-139:~$ jupyter notebook --generate-config
Writing default config to: /home/ubuntu/.jupyter/jupyter_notebook_config.py
ubuntu@ip-172-31-24-139:~$ █
```

輸入

mkdir certs

後按enter

輸入

cd certs

後按enter

# 輸入

```
sudo openssl req -x509 -nodes -days 365 -newkey rsa:1024 -keyout mycert.pem -out mycert.pem
```

# 後按enter

verify password.

Out[2]: 'sha1:9272c5219552:371ceb5fa3d6ab839684a03930f512d537824189'

In [3]: exit

```
ubuntu@ip-172-31-24-139:~$ jupyter notebook --generate-config
```

```
Writing default config to: /home/ubuntu/.jupyter/jupyter_notebook_config.py
```

```
ubuntu@ip-172-31-24-139:~$ mkdir certs
```

```
ubuntu@ip-172-31-24-139:~$ cd certs/
```

```
ubuntu@ip-172-31-24-139:~/certs$ sudo openssl req -x509 -nodes -days 365 -newkey  
rsa:1024 -keyout mycert.pem -out mycert.pem
```

```
Generating a 1024 bit RSA private key
```

```
.....+++++
```

```
.....+++++
```

```
writing new private key to 'mycert.pem'
```

```
-----
```

```
You are about to be asked to enter information that will be incorporated  
into your certificate request.
```

```
What you are about to enter is what is called a Distinguished Name or a DN.
```

```
There are quite a few fields but you can leave some blank
```

```
For some fields there will be a default value,
```

```
If you enter '.', the field will be left blank.
```

```
-----
```

```
Country Name (2 letter code) [AU]:
```

照著做回答問題吧

接下來是改設定檔時間

輸入

cd ~/.jupyter/

後按enter

輸入

vim jupyter\_notebook\_config.py

後按enter

```
# Configuration file for jupyter-notebook.
```

```
#-----  
# Configurable configuration  
#-----  
  
#-----  
# LoggingConfigurable configuration  
#-----  
  
# A parent class for Configurables that log.  
#  
# Subclasses have a log trait, and the default behavior is to get the logger  
# from the currently running Application.
```

```
#-----  
# SingletonConfigurable configuration  
#-----
```

```
# A configurable that only allows one instance.  
#  
# This class is for classes that should only have one instance of itself or  
# *any* subclass. To create and retrieve such a class use the
```

看到這個畫面不要怕  
你正在使用大名鼎鼎的vim編輯器

輸入i啟動輸入模式

貼上下一頁投影片的程式碼

```
c = get_config()

# Kernel config
c.IPKernelApp.pylab = 'inline' # if you want plotting support always in your notebook

# Notebook config
c.NotebookApp.certfile = u'/home/ubuntu/certs/mycert.pem' #location of your certificate file
c.NotebookApp.ip = '*'
c.NotebookApp.open_browser = False #so that the ipython notebook does not opens up a
browser by default
c.NotebookApp.password = u'sha1:68c136a5b064...' #the encrypted password we generated
above  
記得把你輸入密碼後抄下來的東西打上去
# It is a good idea to put it on a known, fixed port
c.NotebookApp.port = 8888
```

按esc離開輸入模式

輸入:wq存檔離開

輸入cd ~

輸入jupyter notebook  
打開程式

輸入jupyter notebook  
打開程式

```
Command 'cde' from package 'cde' (universe)
Command 'cdw' from package 'cdw' (universe)
cd~: command not found
ubuntu@ip-172-31-24-139:~/jupyter$ cd ~
ubuntu@ip-172-31-24-139:~$ jupyter notebook
[W 20:27:44.400 NotebookApp] Unrecognized JSON config file version, assuming ver-
sion 1
[I 20:27:44.647 NotebookApp] [nb_conda_kernels] enabled, 1 kernels found
[I 20:27:44.659 NotebookApp] Writing notebook server cookie secret to /run/user/
1000/jupyter/notebook_cookie_secret
[I 20:27:45.282 NotebookApp] ✓ nbpresent HTML export ENABLED
[W 20:27:45.283 NotebookApp] ✗ nbpresent PDF export DISABLED: No module named 'n-
nbrowserpdf'
[I 20:27:45.402 NotebookApp] [nb_anacondacloud] enabled
[I 20:27:45.410 NotebookApp] [nb_conda] enabled
[I 20:27:45.413 NotebookApp] Serving notebooks from local directory: /home/ubunt-
u
[I 20:27:45.413 NotebookApp] 0 active kernels
[I 20:27:45.414 NotebookApp] The Jupyter Notebook is running at: https://[all ip
addresses on your system]:8888/
[I 20:27:45.414 NotebookApp] Use Control-C to stop this server and shut down all
kernels (twice to skip confirmation).
```

回到EC2的選單



**Connect To Your Instance**

I would like to connect with  A standalone SSH client  A Java SSH Client directly from my browser (Java required)

To access your instance:

1. Open an SSH client. (find out how to [connect using PuTTY](#))
2. Locate your private key file (ISHENGFANG.pem). The wizard automatically detects the key you used to launch the instance.
3. Your key must not be publicly viewable for SSH to work. Use this command if needed:  
`chmod 400 ISHENGFANG.pem`
4. Connect to your instance using its Public DNS:  
**ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com**

Example:

```
ssh -i "ISHENGFANG.pem" ubuntu@ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com
```

Please note that in most cases the username above will be correct, however please ensure that you read your AMI usage instructions to ensure that the AMI owner has not changed the default AMI username.

If you need any assistance connecting to your instance, please see our [connection documentation](#).

**Close**

Instance ID: **ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com** | Public DNS: **ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com**

已儲存的螢幕擷取畫面  
螢幕擷取畫面已新增至您的  
OneDrive。  
Microsoft OneDrive



已儲存的螢幕擷取畫面  
螢幕擷取畫面已新增至您的  
OneDrive。  
Microsoft OneDrive

複製反白的部分

在前後加上

`https://`

`:8888`





# 您的連線並不安全

ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com 的網站管理員未正確設定好網站。為了確保您的資訊不會被盜走，Firefox 並未連線至該網站。

[更多資訊...](#)

[返回](#)

[進階](#)



回報這類的錯誤，幫助 Mozilla 找出並封鎖惡意網站

這是你自己的網站

不要怕

點進階



# 您的連線並不安全

ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com 的網站管理員未正確設定好網站。為了確保您的資訊不會被盜走，Firefox 並未連線至該網站。

[更多資訊...](#)

[返回](#)

[進階](#)



回報這類的錯誤，幫助 Mozilla 找出並封鎖惡意網站

ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com:8888 用了無效的安全憑證。

該憑證未受信任，因為憑證是自己簽署的憑證。

憑證對於名稱 ec2-52-68-205-95.ap-northeast-1.compute.amazonaws.com 無效。

錯誤代碼: [SEC\\_ERROR\\_UNKNOWN\\_ISSUER](#)

[新增例外網站...](#)

# 新增例外網站



Password:

Log in

輸入你所設定的密碼看看

[Files](#) [Running](#) [Clusters](#) [Conda](#)

Select items to perform actions on them.

[Upload](#) [New ▾](#) 

<input type="checkbox"/>	
<input type="checkbox"/>	<a href="#">anaconda3</a>
<input type="checkbox"/>	<a href="#">certs</a>
<input type="checkbox"/>	<a href="#">Anaconda3-4.1.1-Linux-x86_64.sh</a>

是的，你成功了

**But**

代誌不是憨人想的那麼簡單

你現在只要一關掉PuTTY  
Jupyter也會跟著關掉

所以我們要用點指令讓

Jupyter一直開著

重開PuTTY

輸入nohup jupyter notebook

按Enter

然後你就可以放心的關掉  
PuTTY了

建議可以利用tinyurl之類的短網址功能  
讓網址變好記喔

# TinyURL.com

Making over a billion long URLs usable! Serving billions of redirects per month.

[Home](#)

[Example](#)

[Make Toolbar](#)

[Button](#)

[Redirection](#)

[Hide URLs](#)

[Preview](#)

[Feature<sup>cool!</sup>](#)

[Link to Us!](#)

[Terms of use](#)

[Contact Us!](#)

[Donate](#)



## Welcome to TinyURL!™

Are you sick of posting URLs in emails only to have it break when sent causing the recipient to have to cut and paste it back together? Then you've come to the right place. By entering in a URL in the text field below, we will create a tiny URL that **will not break in email postings** and **never expires**.

Enter a long URL to make tiny:

Custom alias (optional):

May contain letters, numbers, and dashes.

## An example

Turn this URL:

[http://www.amazon.com/Kindle-Wireless-Reading-Display-Globally/dp/B003FSUDM4/ref=amb\\_link\\_353259562\\_2?pf\\_rd\\_m=ATVPDKIKX0DER&pf\\_rd\\_s=center-10&pf\\_rd\\_r=11EYKTN682A79T370AM3&pf\\_rd\\_t=201&pf\\_rd\\_p=1270985982&pf\\_rd\\_i=B002Y27P3M](http://www.amazon.com/Kindle-Wireless-Reading-Display-Globally/dp/B003FSUDM4/ref=amb_link_353259562_2?pf_rd_m=ATVPDKIKX0DER&pf_rd_s=center-10&pf_rd_r=11EYKTN682A79T370AM3&pf_rd_t=201&pf_rd_p=1270985982&pf_rd_i=B002Y27P3M)

into this TinyURL:

<http://tinyurl.com/KindleWireless>

Which one would you rather cut and paste into your browser? That's the power of TinyURL!

## Add TinyURL to your browser's toolbar

Click and drag the following link to your *links* toolbar.

[TinyURL!](#)

Once this is on your toolbar, you'll be able to make a TinyURL at the click of a button. By clicking on the toolbar button, a TinyURL will be created for the page you are currently at.

This is compatible with most web browsers and platforms as long as your bookmarks or favorites allow javascript. The links toolbar



有任何問題可以用Facebook密我  
或是寄信

# 資料來源

# Running an iPython Notebook Server on AWS - EC2 Instance

<http://blog.impiyush.me/2015/02/running-ipython-notebook-server-on-aws.html>

# Create an iPython HTML Notebook on Amazon's AWS Free Tier from scratch.

<https://gist.github.com/iamatypeofwalrus/5183133>

AWS 學習筆記(1)&(2)

allenchien.logdown.com