

# Winnie Lee

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## EDUCATION

### University of California, Berkeley

2017 – 2019

Master of Information Management and Systems

Coursework: Artificial Intelligence, Applied Machine Learning, Natural Language Processing, Big Data Development, Database Management, Quantitative Research, Data Science, Web Architecture.

### National Chengchi University, Taiwan

2005 – 2009

Major: B.S. in Computer Science; Minor: European Language and Culture

Study abroad coursework in Management at Escola De Administração De Empresas De São Paulo – FGV, Brazil

## EXPERIENCE

### Graduate Student Researcher - Data Science, University of California, Berkeley

2018 – Present

- Develop machine learning models using Scikit-learn and Tensorflow to classify gamma-ray (0.2-5 MeV) data collected by balloon-borne telescope for studying astrophysical sources of nuclear line emission and gamma-ray polarization.

### Backend Web Team Manager, Ruten – PChome Online & eBay JV

2015 – 2017

- Recruited and mentored a team sized 20, consisting of backend and frontend engineers.
- Collaborated with stakeholders(e.g. project managers, customer relations, marketing) to design functions and business models of products to ensure feasibility and accountability.
- Administered project scheduling and timeline scoping, distributed tasks to engineers, and code-reviewed for backend programs with agile approach in order to ensure product quality and on-time delivery.
- Coordinated API specs and system integrated testing with external partners of logistics and third party online payment.

### Backend Web Engineer, Ruten – PChome Online & eBay JV

2012 – 2015

- Developed website and transaction related feature APIs ranging from bidding, online payment, to products delivery on the C2C e-commerce website, mobile app, and ERP systems with PHP and Mustache.
- Built package tracking and payment after delivery mechanism on the C2C shopping website in PHP and SQL, parsing FTP/SOAP data from external logistics partners, providing more convenient shipping options for users and gaining more user behavioral data for decision making.
- Refactored legacy programs to improve OO structure and to better integrate with new product features.
- Overhauled website encoding from Big5 to UTF-8 of thousands of webpages and Data model, in order to solve long-existing Chinese character incompatible issues.
- Diagnosed and resolved the most difficult or urgent product functionality issues.

### Co-Founder / Full-Stack Developer, Self-employed

2011 – 2012

- Managed and mentored a 5 person team of developers and designers, matching projects with skills and distributing tasks by skills levels, individuals' strengths.
- Designed and developed business websites using HTML/ CSS3/ JavaScript/ PHP with Drupal for clients.
- Pitched and communicated with clients for website design and features, exploring clients' real needs.

### Web Engineer, Mobile01

2010 – 2011

- Managed relations with technology manufacturers and collected product data from these partners to ensure our website got the most exclusive product news for our users.
- Developed a product specifications comparison system using PHP and JavaScript on the technology product forum, helping users make purchase decisions.

### APAC Web Engineer, NVIDIA Corporation

2009 – 2010

- Maintained contents on 4 NVIDIA websites in APAC regions (China, Korea, Japan, Taiwan).
- Collaborated with colleagues from headquarters and other subsidiaries in different countries on website development using Flex (ActionScript) and MATE framework.
- Developed interactive websites using HTML/ CSS3/ JavaScript/ PHP for marketing campaigns under extremely limited timeframe.
- Analyzed and visualized website clicks data to assist website components positioning design.

## PROJECTS

### A Code Search Engine for Open Source Code in Python

2019

Build a search engine to search Python source code directly with natural English using natural language processing and neural networks.

### Using Satellite Imagery and Deep Learning to Evaluate Aid Distribution in Myanmar

2019

Use machine learning to explore to what extent the variation in community-led development projects in Myanmar is explained by poverty and wealth measures.

### Real-time Tracking of Deformable Human Avatars

2018

Built a human pose tracking system by fusing low-dimensional 2D and 3D kinematic models with computer vision techniques.

### MoMA artwork search using colors

2017

Developed a Python app to search MoMA artworks by dominant colors using Google Cloud Vision API.

## SKILLS

**Languages:** Python, PHP, SQL, JavaScript

**Database:** MySQL, Oracle, MongoDB, SQLite

**Machine Learning Libraries:** Scikit-Learn, TensorFlow, Keras, NLTK, SpaCy

**Tools and Frameworks:** Flask, Mustache, Jupyter Notebook, SVN, Git, Tableau