



HKU Korean Coding Society

Team Machine Learning

Team Presentation
November 18, 2023



HKU Korean Coding Society

Overview

CMM ML team provides a variety of curriculum and activities

Introduction

- ✓ Machine Learning Team aims to:
 - Cultivate members' basic knowledge on ML
 - Create meaningful ML projects that will help the school community
- ✓ The team is divided into two **subgroups**, namely Natural Language Processing (NLP) and Computer Vision (CV) teams

Members



Jinho Kwak
Project Manager



Dongchan Shin
Project Manager



Heeyun Jung
Team Leader (NLP)



Sooah Kim
Team Leader (CV)



Hyunsoo Seong
Member (CV)



Minwoo Jeong
Member (NLP)



Dongjun Yeom
Member (CV)



Seungwoo Oh
Member (NLP)



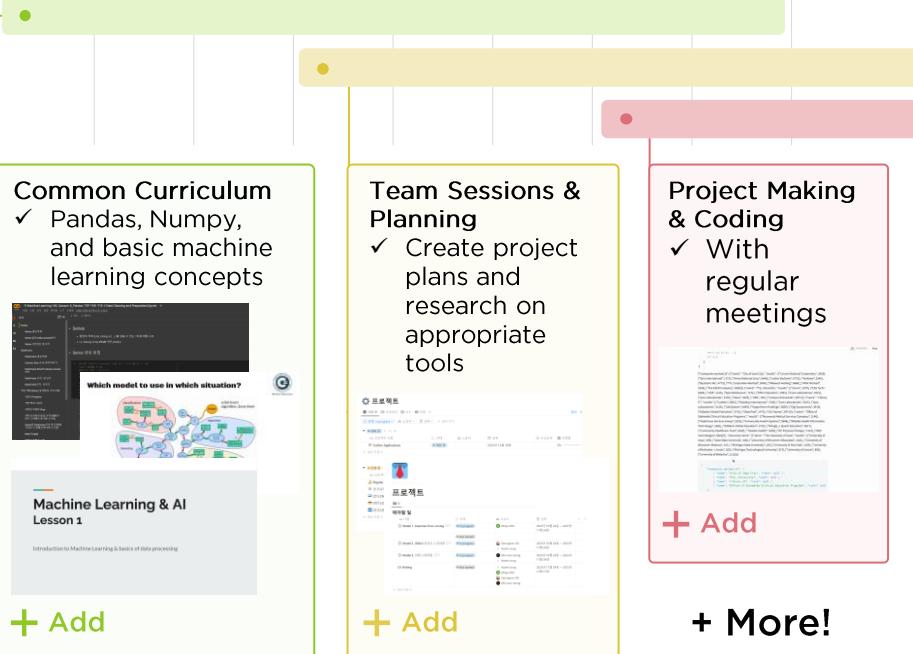
Heaju Kim
Member (CV)



Minju Kim
Member (NLP)

Timeline

Sep 24 | Oct 1 | Oct 8 | Oct 15 | Oct 22 | Oct 29 | Nov 5 | Nov 12 | ~



Computer Vision Team 📸

Project: HKU Student ID Card Recognition



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Project Description

Detect student ID card image and read the details for identity verification

Why This Project?

- Identity Verification
- Connection to NFC app
- Other ease of expansion

Work Distribution Overview



How do CV team achieve this?

Aa Task Name	Aa Details	Aa Status
Study Sessions	<ul style="list-style-type: none">✓ General topics on Image Processing and computer vision✓ OpenCV✓ TensorFlow& Assignments for each of the topics	● Completed
Regular Meetings	Regular <u>weekly</u> meetings for progress check and problem shooting	● In progress
Coding	Achieve the goal by using libraries and tools such as OpenCV, TensorFlow and Tesseract	● In progress

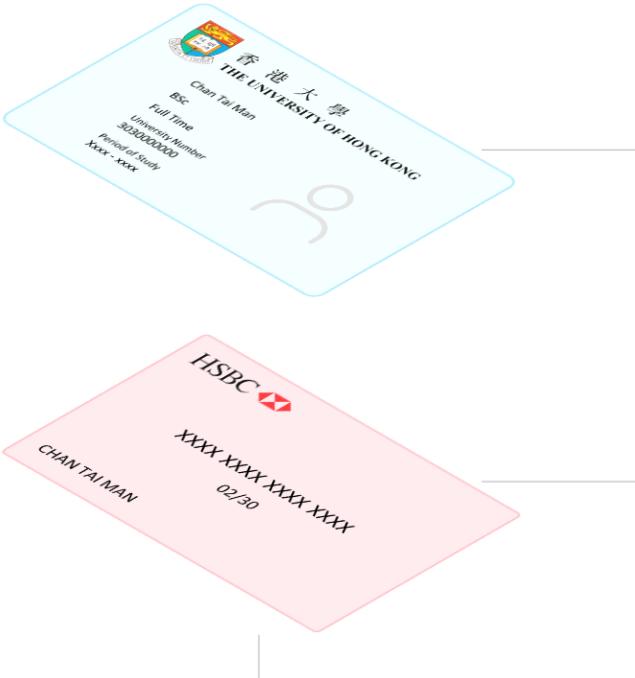
✚ To be explained in the latter slides!

Computer Vision Team



Project Details

Input



Heaju Kim

- ✓ Member Responsible
- ✓ Progress: 10%



CNN

Convolutional Neural Network
✓ Detects whether the image is
HKU Student ID or Not

HKU ID?

- YES

Proceed

HKU ID?

- NO



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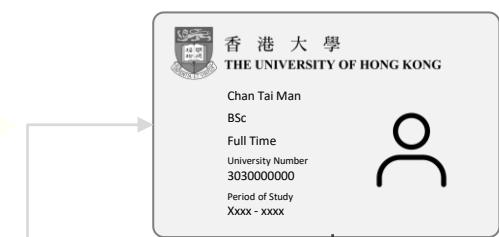
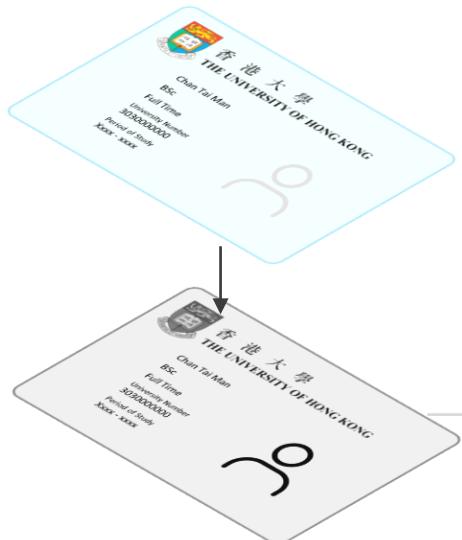
Computer Vision Team 📸

Image Processing & Edge Detection → Perspectives Transformation

- ✓ Noise Removal & Thresholding
- ✓ Canny Edge Detection

- ✓ Vanishing Points (*Not drawn to scale)

Optical Character Recognition



Field	Details
Name	Chan Tai Man
Programme	Bsc
Status	Full-time
University Number	3030000000
Period of Study	XXXX - XXXX



Heaju Kim & Hyunsoo Seong
✓ Members Responsible
✓ Progress: 50%



Hyunsoo Seong
✓ Member Responsible
✓ Progress: 10%



Dongjun Yeom
✓ Member Responsible
✓ Progress: 50%





Project: CView

Project Description

Curriculum Vitae (CV) / Resume Scoring and Writing

Why This Project?

- Learning diverse NLP fields
- Targeting HKU Students
- Implementability

Work Distribution Overview



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How do NLP team achieve this?

Aa Task Name	Aa Details	Aa Status
Research	Research on required field knowledge and libraries to be used at once through GitHub project review	● Completed
Coding	Project completion using GPT and libraries learned in the machine learning common curriculum	● In progress
Future Developments & Maintenance	<ul style="list-style-type: none">✓ Clean coding in OOP for stabilization and future applications✓ Web scrapping to keep the dataset fresh✓ Make inexpensive version of scorer by using less GPT API calls✓ Add membership function	● Planning

⊕ To be explained in the latter slides!

CView Project Details, Progress, & Demo

Progress

MADELINE CHAN

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EDUCATION

CARNEGIE MELLON UNIVERSITY
PITTSBURGH, PA - CLASS OF MAY 2016
Bachelor of Architecture / GPA: 3.5/4.00

HERICKS HIGH SCHOOL
NEW HYDE PARK, NY / JUNE 2011
National Honor Society, National Art Honor Society, AP Scholar / GPA: 3.9G/4.00

EXPERIENCE

ENGAGEMENT INTERN / ARCHIVE Global
NEW YORK, NY / MAY - AUGUST 2012
Assisted in the development of a mobile design and public health. Responsible for content and layout of social media platforms including Twitter, Tumblr, and Google+. Designed graphic elements and icons for ARCHIVE Connect, a non-profit housing project.

COMPUTING TEACHING ASSISTANT / Carnegie Mellon
PITTSBURGH, PA / AUGUST 2012 - present
Instructed a class of 30+ students on computing resources. Created lesson plans reflective of student needs.

FOUNDER & CO-BLOGGER / OHMYASIAN
NEW YORK, NY / MARCH 2009 - present
Launched culture blog for Asian Americans. Subscribers, published daily posts and writings about art, food, travel, pop culture, fashion with Google AdSense, social media, multi-organizational collaborations, advertising, and HTML.

TEACHING ASSISTANT / Queens Herald Education
NEW YORK, NY / JUNE - AUGUST 2011, 2012
Instructional aide for 35+ middle school students in algebra, English, and writing. Developed weekly test materials, graded assignments, and wrote final student evaluations.

DESK ASSISTANT / DAWM Millenium
JAMAICA, NY / JUNE - MAY 2012
Provided assistance in the office, wrote exporting and importing shipment orders, organized files, answered business calls.

ACTIVITIES

FUNDRAISING CHAIR / Global Public Health Brigades
PITTSBURGH, PA / OCTOBER 2012 - PRESENT
Responsible for all aspects of the children's fundraising efforts, charity events, grants, and sponsors. Traveled to Honduras to build latrines and floors to prevent disease, and hold educational public health workshops for the local community.

ARCHITECTURE TAUGHTOR / ARCHITECTURE
PITTSBURGH, PA / AUGUST 2012 - PRESENT
Mentored incoming architecture students. Critiqued projects and helped students transition into their first year.

SAT COACH / Let's Get Ready NYC
NEW YORK, NY / JUNE - AUGUST 2012
Summer program volunteer at NYU SAT program for underserved youth. Taught Critical Reading & Writing, revised admission essays, and advised students in the admission process.

SKILLS

Mac / Windows, OS X
Microsoft Office
Adobe Photoshop
Adobe Illustrator
Adobe Indesign
AutoCAD 2013
RhinoCeros 3D / V-Ray
Revit 2013
SketchUp
Ecotect

INTERESTS

Digital Photography
Sketching / Drawing
Communication Design
Traveling
Cartooning / conversational Mandarin / elementary level
French / elementary level

HONORS

SCHOOL HONORS / CARNEGIE MELLON
SCHOOL OF ARCHITECTURE / DEC 2011
Degree of Architecture award to top GPA in class.

SCHOLASTIC ART & WRITING ALLIANCE
POLYGRAPH ENTER / MAY 2011
Gold medal in architecture.
Attended Carnegie Hall Award ceremony.

• Information Extraction

- ✓ Extract key information (e.g. school) and convert into a score



Minwoo Kim

- ✓ Member Responsible
- ✓ Progress: 100%

• Grammar and spelling scorer

- ✓ Check spelling and grammar errors using pre-made libraries



Minju Kim

- ✓ Member Responsible
- ✓ Progress: 100%

Next Project: CV Writing

- ✓ To be completed by the end of December

• JD&CV similarity

- ✓ Extract key information from both JD and CV and extract similarity



Seungwoo Oh

- ✓ Member Responsible
- ✓ Progress: 100%

Responsibilities for Sales Manager

- Recruit, hire, and **train sales team**
- **Set sales goals**, compare performance to goals, and adjust goals as needed
- Assess current team processes and procedures, identify opportunities for improvement, and implement them
- Develop individual quotas and assign territories for team members
- Provide detailed and **accurate sales forecasts**
- Coach, mentor, and provide feedback to team members
- Foster a competitive yet collaborative team environment
- Assess individual performance through observation and measurement, and suggest corrective actions as needed



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