

HOW TO MARKET YOURSELF & YOUR RESEARCH

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ASSIGNMENT #5: WRITING A RESUME

- X Write a customized resume for a specific job posting. Job postings will be provided. Selected resumes will be discussed during the resume workshop. We welcome volunteers.
- X Posts will be available later this week.



WHY DO I NEED TO MARKET MYSELF AND MY RESEARCH?

- X “Do good work & let people know about it.” (David Karger on [Quora](#))
- X Self-promotion does matter.
 - Affects jobs, grants, awards, citations, ...
- X Helps you revise research vision & reassess impact.
- X Broadens research impact & audience.
- X Norms & culture vary between areas/communities.
- X Nothing replaces good research.

PROMOTING YOUR RESEARCH



"MARKETING" CHANNELS

- X Paper
- X Grant proposal
- X CV
- X Talk
- X Demo, poster
- X Video
- X Open data, code, material
- X Website
- X Social media
- X Media exposure
- X Productization / startup
- X Elevator pitch
- X Networking
- X Teaching
- X Academic service
- X Job market
- X Letters of recommendation
- X Collaboration



- X “The curriculum vitae, also known as a CV or vita, is a comprehensive statement of your educational background, teaching, and research experience. It is the standard representation of credentials within academia.”
- X CV vs Résumé
 - CV: can be long, academic purposes, focus on academic accomplishments
 - Résumé: 1 or 2 pages, industry jobs, focus on skills
- X Many researchers keep their CV up-to-date and make it publicly available, even if they are not looking for jobs.



CV: WHAT TO INCLUDE?

X Required components

- Name, contact information
- Education
- Honors & Awards
- Research interests
- Experience (positions held)
- Publications
- Teaching
- Talks
- Services

X Optional components

- Grants
- Patents
- Students
- Press
- Languages
- Skills
- References



CV: WHAT NOT TO INCLUDE?

- X Anything personal beyond contact info
 - Photo
 - Age, date of birth
 - Marital status
- X Long descriptions of projects and papers



CV: EXAMPLES

- X There are tons of available examples online.
- X Examples
 - [Minsuk Chang](#) (Ph.D. student)
 - [Me](#) (junior faculty)
 - [Scott Klemmer](#)
 - [Geoffrey Hinton](#)
- X Resources
 - https://www.oise.utoronto.ca/orss/UserFiles/File/Creating_your_academic_cv_handout_1.pdf
 - <https://grad.illinois.edu/sites/default/files/PDFs/CVsamples.pdf>



DEMO & POSTER

- X Great way to show off your work & talk to people
 - Remember the “let people know about it” part?
- X Many conferences have non-archival / lightly reviewed tracks
 - In ML, CV, etc., full papers get poster slots.



← UIST 2017
demos



UIST 2015 →
posters



POSTER TIPS

- X Avoid making it text-heavy.
 - Use as talking points, not a printed version of the paper.
 - Many people will look at it from a distance.
- X Add your contact info.
 - Many people might see it even when you're not at the booth.
- X Acknowledge sponsors.
- X Bring a laptop for additional info and/or demo.
- X Examples & Resources
 - [UIST poster gallery](#)
 - [Research Posters 101](#)

Interaction Peaks and Data-Driven Interfaces for Online Lecture Videos

Juho Kim (MIT CSAIL)

with Rob Miller (MIT CSAIL)



Understanding In-Video Dropouts and Interaction Peaks in Online Lecture Videos.

Juho Kim, Philip J. Guo, Daniel T. Seaton, Piotr Mitros, Krzysztof Z. Gajos, Robert C. Miller. *Learning at Scale 2014*, to appear.

Video interaction data from MOOCs

Motivation: How do students learn from videos on Massive Open Online Courses (MOOCs)? We analyze **video interaction data** (pause, play, scrubbing).

Dataset: interaction log from 4 edX courses in Fall 2012

Course	Subject	University	Students	Videos	Video Length	Processed Events
6.034	Intro CS & Programming	MIT	59,135	143	7:40	4,491,648
PH207a	Statistics for Public Health	Harvard	30,742	303	10:48	15,832,068
CS148.1x	Artificial Intelligence	Berkeley	22,690	149	4:45	14,374,203
1.0001x	Robot State Chemistry	MIT	15,381	273	6:19	4,852,837
Total			127,839	862	7:46	39,319,737

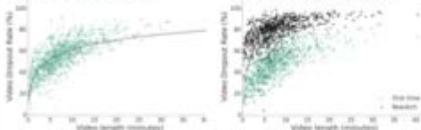
Video dropout analysis

Video dropout: percentage of students navigating away from a video before completion

Overall dropout rate: 55.2% (36.6% within the first 3%)

Longer videos have a higher dropout rate.

Re-watching sessions have a higher dropout rate.



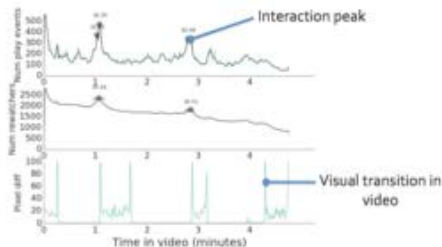
Interaction peak analysis

Interaction peaks occur when a significant number of students play, pause, or replay at the time of the video.

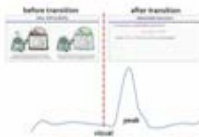
- 3.7 peaks per video on average
- **Tutorial videos** show more frequent and stronger peaks than **lecture videos**.
- **Re-watching sessions** show more frequent and stronger peaks than **first-time sessions**.

What causes interaction peaks to occur?

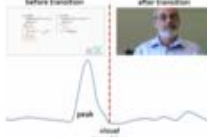
Observation: interaction peaks often accompany visual transitions in the video.



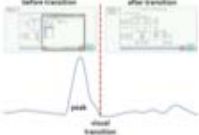
1. Beginning of new material



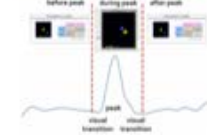
2. Returning to content



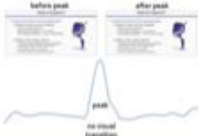
3. Tutorial step



4. Replaying a segment



5. Non-visual explanation



More content channels for future analysis

- Transcript: text analysis
- Acoustic: speech analysis

Implications

For video editors & instructors

- Avoid sudden visual transitions
- Make shorter videos

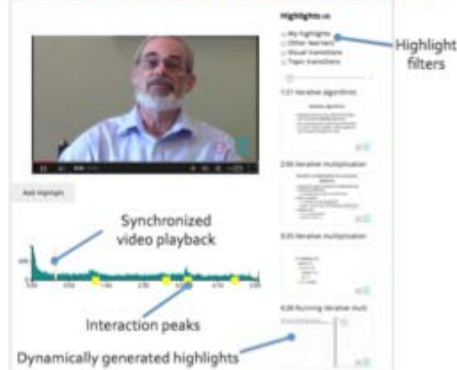
For video interfaces

- Provide interactive links and screenshots for highlights.
- Consider video summarization for selective watchers.
- Enable one-click access for steps in tutorial videos.

Data-driven video interface

Can video interaction data be used to improve students' learning experience?

Video interface dynamically generated by learner data



Acknowledgements

- This work is supported in part by **Quanta Computer & edX**.
- Juho Kim is supported by the **Samsung Fellowship**.



- X Visual demonstration of your technique with storytelling
- X It scales! (it's like demoing to the whole world)
- X It lasts! (even if your demo cannot run live anymore, video is likely to still play)
- X It engages! (who doesn't like watching cool videos?)
- X Common in HCI/Graphics/Vision
- X Examples
 - [Not Going to Take This Anymore: Multi-objective Overtime Planning for Software Engineering Projects](#)
 - [inFORM – Interacting With a Dynamic Shape Display](#)
 - [Revealing Invisible Changes In The World](#)



OPEN SCIENCE

- X More emphasis on open science (data, code, reviews, questionnaires, etc.)
- X Important for greater impact & replicability
- X Helps to keep a project website with all resources available
- X Examples
 - [RecipeScape: An Interactive Tool for Analyzing Cooking Instructions at Scale](#)
 - [MoSculp: Interactive Visualization of Shape and Time](#)
 - [CMU Panoptic Dataset](#)








OPEN SCIENCE: ARTIFACT EVALUATION

- X Gaining popularity in PL/SE
- X ACM supports artifact review & badging

Artifact Review and Badging:

A variety of research communities have embraced the goal of reproducibility in experimental science.
[\[more information\]](#)

-  **Artifacts Evaluated $\diamond\diamond\diamond$ Functional**
The artifacts associated with the research are found to be documented, consistent, complete, exercisable, and include appropriate evidence of verification and validation.
-  **Artifacts Evaluated $\diamond\diamond$ Reusable**
The artifacts associated with the paper are of a quality that significantly exceeds minimal functionality.
-  **Artifacts Available**
Author-created artifacts relevant to this paper have been placed on a publically accessible archival repository.
-  **Results Replicated**
The main results of the paper have been obtained in a subsequent study by a person or team other than the authors, using, in part, artifacts provided by the author.
-  **Results Reproduced**
The main results of the paper have been independently obtained in a subsequent study by a person or team other than the authors, without the use of author-supplied artifacts.



WEBSITE

- X Various people might want to learn about you and your work.
 - They mostly start by Googling your name.
- X Convenient to route people to various resources: “It’s on my website.”
- X Could be seen as a visual, creative, accessible version of your CV.
 - Videos, images, news items, travel schedule, etc. can be shown.
- X More important for junior researchers who need more visibility.
- X Most CS academics nowadays have one.
- X Examples
 - [Minsuk Chang](#)
 - [Stefanie Mueller](#)
 - [Frans Kaashoek](#)
 - [Me](#)
 - [Maneesh Agrawala](#)
 - [Barbara Liskov](#)



NETWORKING & CONFERENCES

- X You're there as an active participant, not as a consumer.
- X Listen to talks, but more importantly, talk to people.
- X List up people you want to talk to.
 - People who do relevant research regardless of their fame
- X Prepare elevator pitches.
 - You'll be asked "Are you presenting anything?" numerous times.
- X Try NOT to hang out with labmates (even worse: continuously speaking in Korean or other non-English languages).
- X Make introductions & ask for introductions.



NETWORKING & CONFERENCES: RESOURCES

- X [Attending Professional Conferences as a Newcomer](#) by Philip Guo
- X [Networking Tips for Younger PhD Students](#) by Jean Yang
- X [Advice for Social Interactions & Relationships](#) by Philip Guo



PC: Philip Guo @
CHI 2017

JOB MARKET

SOME NOTES

X N=1

X Quick tour of what the last year of Ph.D. looks like
(if you target the U.S. job market)

X On the U.S. (& KAIST) job market in 2014–2015

MY ULTIMATE VISION FOR KAIST STUDENTS

- X Faculty at top schools anywhere in the world! MIT, Stanford, CMU...
- X Because... you can.
- X But we need more leadership in the field, and students can and should be a driving force.

THE TIMELINE

- X 2014.8: discussion with advisors
- X 2014.9–11: research statement
- X 2014.10: letters of recommendation
- X 2014.11: teaching & diversity statement
- X 2014.11–12: school / company selection
- X 2014.12: application
- X 2015.2–4: interview
- X 2015.4–5: offer
- X 2015.5: decision

1. DISCUSSION WITH ADVISORS

- X The talk: “Can I graduate?”
 - Am I ready?
 - Does my advisor think I’m ready?
 - Does the market think I’m ready?

- X Three pillars of research

- X Market fluctuation >> my productivity increase

2. RESEARCH STATEMENT

- X Your identity as a researcher
- X Past & future with focus on results, impact, and vision

- X At least 2 months
- X 10+ readers at different stages
- X 2-3 complete rewrites

3. LETTERS OF RECOMMENDATION

- X One of the most important parts, partly because letters can't be easily made up and take time & effort to get & write
- X Strong letter, well known > Weak letter, well known
> Strong letter, less known > Weak letter, less known
- X Every letter says "best": it's the descriptor that matters.
- X Plan your writers YEARS in advance.

4. TEACHING & DIVERSITY STATEMENT

- X Often not a crucial factor in R1 universities
- X Teaching statement
 - Need a philosophy
 - Possible courses you can teach
 - Something beyond TAing helps.
- X Diversity statement
 - How you plan to contribute to diversity
 - Equal vs. Equitable

5. SCHOOL / COMPANY SELECTION

X ~15 places

X 10–30 is quite common in HCI/CS job market

X Rule of thumb: $1/3$ interview offers, $1/3^2$ final offers

6. APPLICATION

- X RS, TS, DS, Letters
- X CV, Cover letter, Website
- X Advisors' gentle prod
- X Now pray... at least focus on something ELSE
- X Don't try to overthink what's happening at these places.

7. INTERVIEW

X Job talk

- Most people spend months on it
- 5–10 practice talks, video recordings
- The most organized / prepared talk you'll listen to
- Attend & watch many job talks, especially ones outside your area.

X Interview day

- 1–2 days, 10–20 1-on-1s, 3+ uncomfortable meals
- Faculty, students, dean / chair / head, potential collaborators from other departments

8. OFFER

- X You're 갑 for the first time, and only for a short time.
- X Enjoy the negotiation process.
- X Salary, startup fund, space, teaching load, etc.
- X Deferring for 0.5 or 1 year might be a compelling option, especially if you're a fresh Ph.D.

9. DECISION

- X People in your area, department, school
- X Community, life, location, family
- X Industry vs Academia, Korea vs US vs ...
- X Probably a more painful decision than you think.
- X Make sure you stay in good terms with people at places you turn down.

JOB MARKET LESSONS

- Job market prep starts TODAY.
 - Community building in at KAIST is a great first step.
- “What do you want to be known as?”
 - “That person who did X”
- You are the product. Advertise yourself.
 - Getting people to know you is difficult.
 - You can easily write 10 papers nobody cares about.
 - Engage in community discussions & volunteer to lead efforts.
 - Collaborate, give talks, & visit places.

RESOURCES

- X [Tomorrow's Professor mailing list](#)
- X [Philip Guo's blog & Ph.D. Grind](#)
- X [Jean Yang's blog](#)
- X [mcpanic.com](#): 박사과정을 돌아보며
- X [UCSD job talk videos](#)
- X [Juho Kim's faculty app material](#)