



Carleton  
UNIVERSITY

# COMP 5900: Mining Software Repositories

Fall 2017, Tuesdays 11:35 AM - 2:25 PM, CO 214

**Olga Baysal**

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# About Me

- MMath (2006), PhD (2014)  
University of Waterloo
- NSERC Postdoctoral Fellowship (2014)  
University of Toronto
- Assistant Professor (August 2014–July 2015)  
Université de Montréal
- Assistant Professor (August 2015 - current)  
Carleton University

# Research Projects

- **Developer dashboards** (Mozilla)
- **Code review** (Mozilla, WebKit)
- **Code review quality** (Mozilla, Shopify)
  - PhD and Master's students: Oleksii Kononenko and Tresa Rose
- **Mining app reviews** (NLP, sentiment analysis)
  - Master's student: Junaid Maqsood
- **API summarization**
  - Master's student: Shruthi Nagaraj
  - Collaboration with Latifa Guerrouj and Bonita Sharif

# Course Info

- Seminars are on **Tuesdays** from **11:35 AM-2:25 PM**, CO 214
- **No class** on October 24 (Reading Week) and November 28 (I am away to a workshop)
- Course website:
  - [http://olgabaysal.com/teaching/fall17/comp5900/comp5900\\_f17.html](http://olgabaysal.com/teaching/fall17/comp5900/comp5900_f17.html)
- Office Hours: by appointment

# Instructor

**Dr. Olga Baysal:**

Office: HP 5125D

Website: <http://olgabaysal.com>

Email: [olga.baysal@carleton.ca](mailto:olga.baysal@carleton.ca)

Twitter: @olgabaysal

# A Typical Seminar

- You do the required readings of 2-3 research papers and come prepared to class
- Students do presentations and lead class discussion
- Participation! Participation! Participation!
- Weekly paper reviews (if you are not presenting)

# Evaluation

- Weekly paper reviews: 10%
- Class participation and discussion: 20%
- Paper presentations: 20%
- Course project: 50%

# Weekly Paper Reviews

- Each week you must pick **one** paper and write a critical review on it:
  - 500-1000 words long, submitted in **PDF** only!
  - Email it to me by 11:00 AM every Tuesday
  - Email subject: “**COMP 5900: Weekly paper review**”
  - File naming scheme:  
COMP5900\_<StudentName>\_Review1.pdf
- If you are presenting that week, you are excused from doing a review



# Weekly Paper Reviews

1. Why did the authors write this paper?
2. What did they do?
3. How did they validate their work?
4. What are the strength and weaknesses of the approach or its validation? (e.g., 2-3 strengths and 2-3 weaknesses)
5. What did you learn from the paper?

# Class Participation

- Come prepared to talk and discuss papers and research ideas in class
- We all have an opinion! So please share it with others!
- Paper reviews (critical and controversial points) can serve as a starting point of your involvement in class discussions

# Paper Presentations

- Each paper will be presented by a single student
- Select 3-4 papers to present from the [list of papers](#)
- You can also check the proceedings of the past Mining Software Repositories (MSR) conferences <http://2017.msrconf.org/#/hall-of-fame>
- Email me your selection by **September 15**

# Paper Presentations

- Prepare a 25-30 minute conference style presentation on the paper and its ideas (use Keynote, Open Office, PowerPoint, or PDF)
- Prepare questions and lead a 15-30 minute discussion session about the ideas and work that you presented
- You can read additional related papers to help you design an interesting discussion
- Come up with your own provocative ideas on the topic
- Prepare to entertain us!
- Email me your slides (**PDF** only) before the class

# Course Project

- Done in a group of 2, solo projects are allowed
- Can be on the topic of your choice that relates to the course content:
  - An empirical study is always a good pick
  - You can also try [MSR 2018 Challenge](#)

# Course Project Deliverables

- **Project proposal** is due 11:00 AM, **October 3** via email (no marks but you need an approval from me)
- **Written report** is 8-10 page long, done in ACM LaTeX format (which is dense)
  - Submit by email by 11:59 PM, **December 15** (no extension)
- A 15 minute **project presentation** on the last day of classes (**December 6**), with slides

# Topics

- Mining software repositories (data extraction and analysis)
- Development team processes
- Software development tools and environments
- Software analytics
- Software visualization
- Mining social data
- Software evolution
- Quantitative and qualitative evaluation of software engineering research

# Upcoming Deadlines

- Select **3-4 papers** you would like to present (by September 15) and email your selection to me
- Find a partner to work on the project
- Start thinking about your project!



# Next Week

1. “No Silver Bullet: Essence and Accidents of Software Engineering” by Fred Brooks
2. “Selecting Empirical Methods for Software Engineering Research” by Steve Easterbrook et al.

Your Expectations?



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