

# 416 TAs survey

- TAs:

- Anna Zheltukhina



Anna

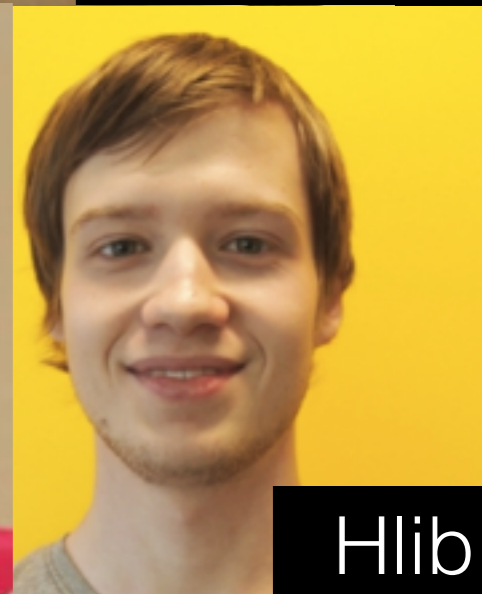


Renato

- Minh (Matthew) Do



Minh



Hlib

- Renato Costa

- Hlib (Gleb) Naumenko

- CPSC 416, Term 2, Section # 201

# 416 Course survey

- Course survey:
  - <https://eval.ctlt.ubc.ca/science>

# Study on Student Led Software Groups

To understand and improve how we teach software development, we are conducting a study on group communication in student software development teams.

## Data Collection:

- existing course data (e.g. course grades, submissions, demographic information)

## What you need to do:

- There is no extra work involved for you

## Data Analysis:

- When: After final grades are submitted
- How: All data will be anonymized before it is analysed

## Risk:

- Your participation in the study will not affect your course experience or course grade in any way.

## Can I opt out?

- Yes, you may choose to have your data removed from the study by accessing the opt out link here: [opt-out form](#) or follow the opt-out link in this document: [consent form](#)

P2 end-game

[reports, demos, marking]

# Distributed system design, 100K ft level

April 6, 2018

# Distributed system design

- What do you need to think about when designing a distributed system?

# Distributed system design

- What do you need to think about when designing a distributed system?
  - System API
  - Node roles
  - Network
  - System state
  - Failures

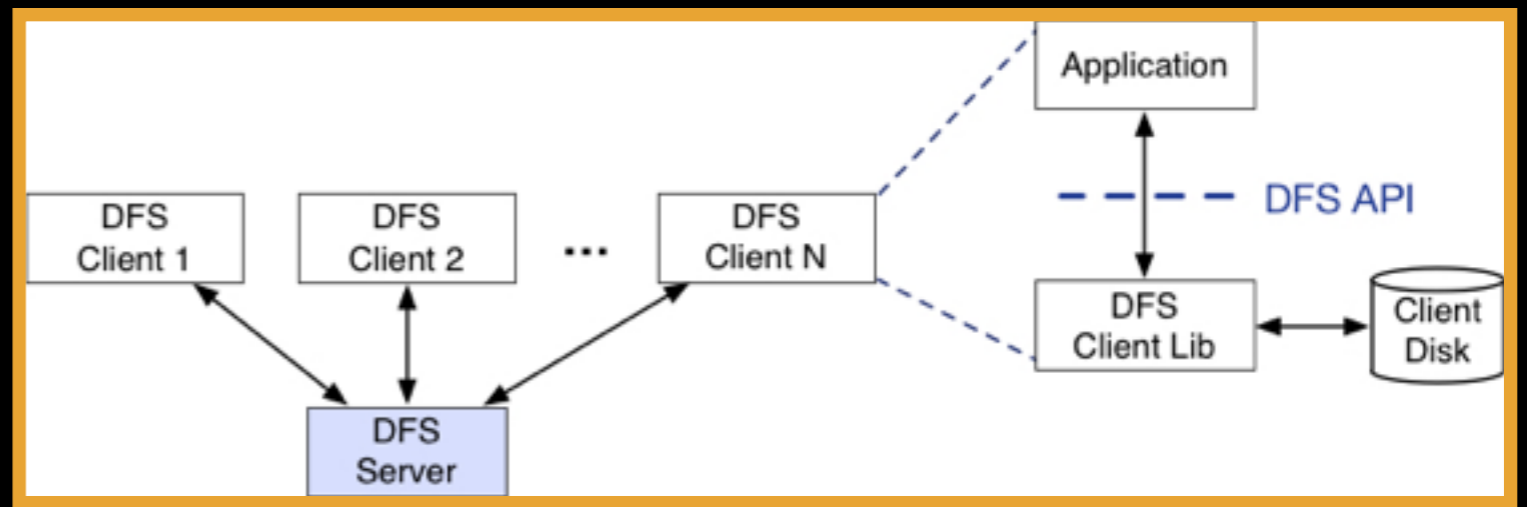
# System API

- Who are the clients of the system?
- What do they assume about the system?
- How do they contact the system?
- Concurrent clients?
- Do clients know about one another?
- How can clients interfere with one another?
- Do we trust the clients? How much and with what?



# System API

## A2



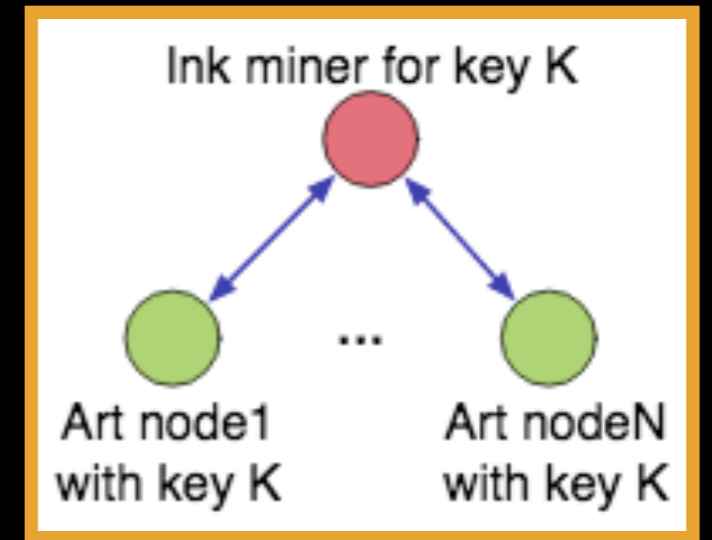
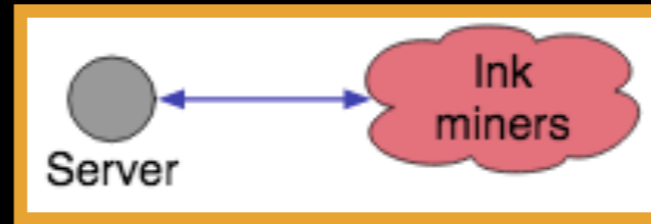
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# Node roles

- What are the different roles that nodes play in the system?
- What makes each role distinct and necessary?
- Which roles need to interact?
- What do different node roles assume about one another?
  - What is the API between node roles? (cross-cutting)
  - All API questions apply: e.g., what is the trust between roles?

# Node roles

## A5

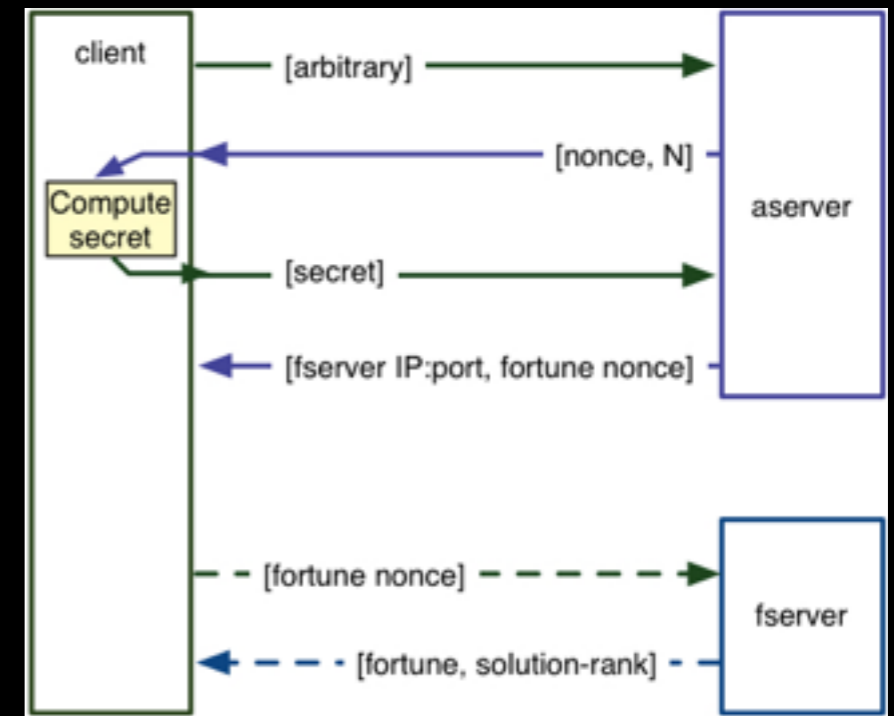


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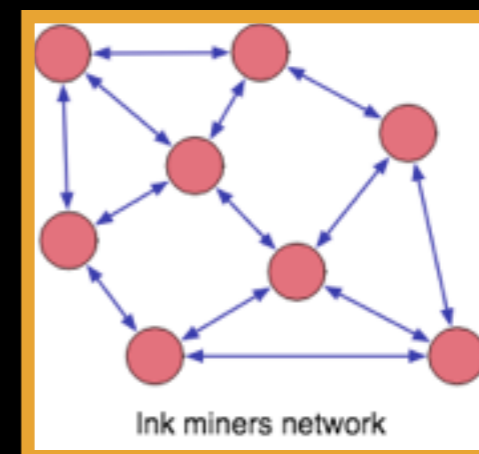
# Network

- What is the network model; what does the network provide?
- What is the network API? And, what are its semantics?
- How do we name entities in the network and how do we find/look them up?
- What is the network topology?
- Do we trust the network? With what?

# Network: A1, P1



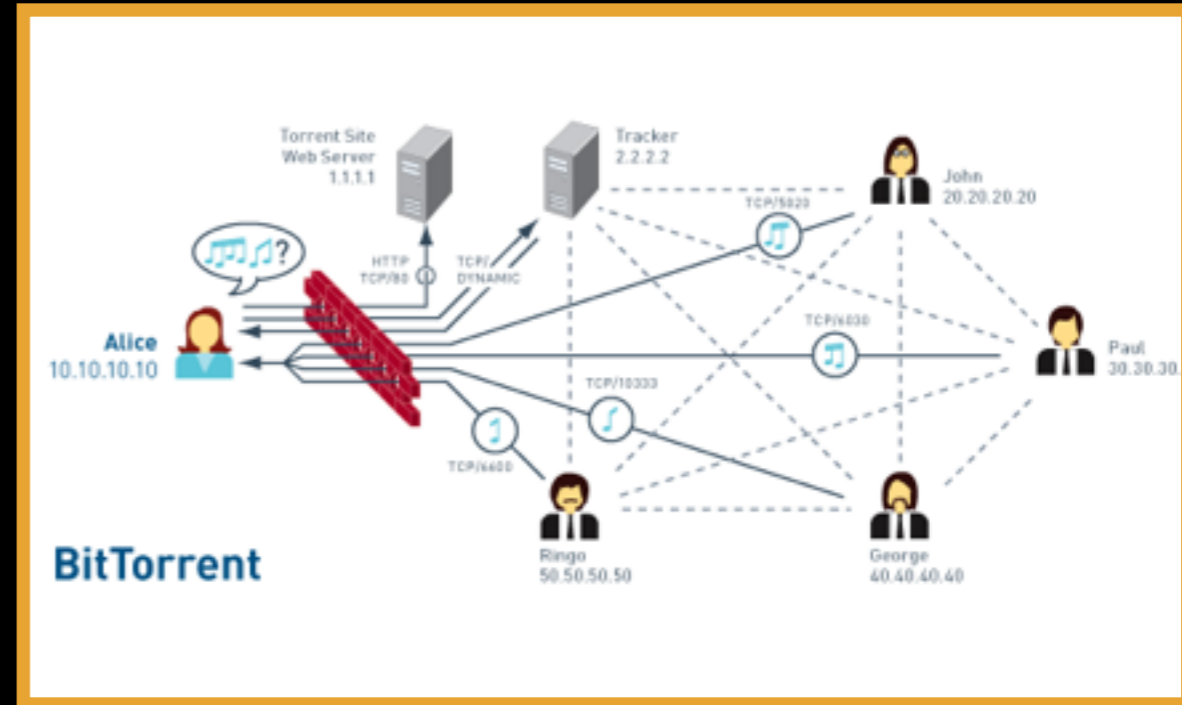
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# System state

- What is the distributed system state?
- What is **not** distributed system state?
- What nodes have what state in the system?
- What distributed state can clients observe?
- What are the semantics of distributed state? Is this a function of node type, location, or other features of the system?

# System state: BT



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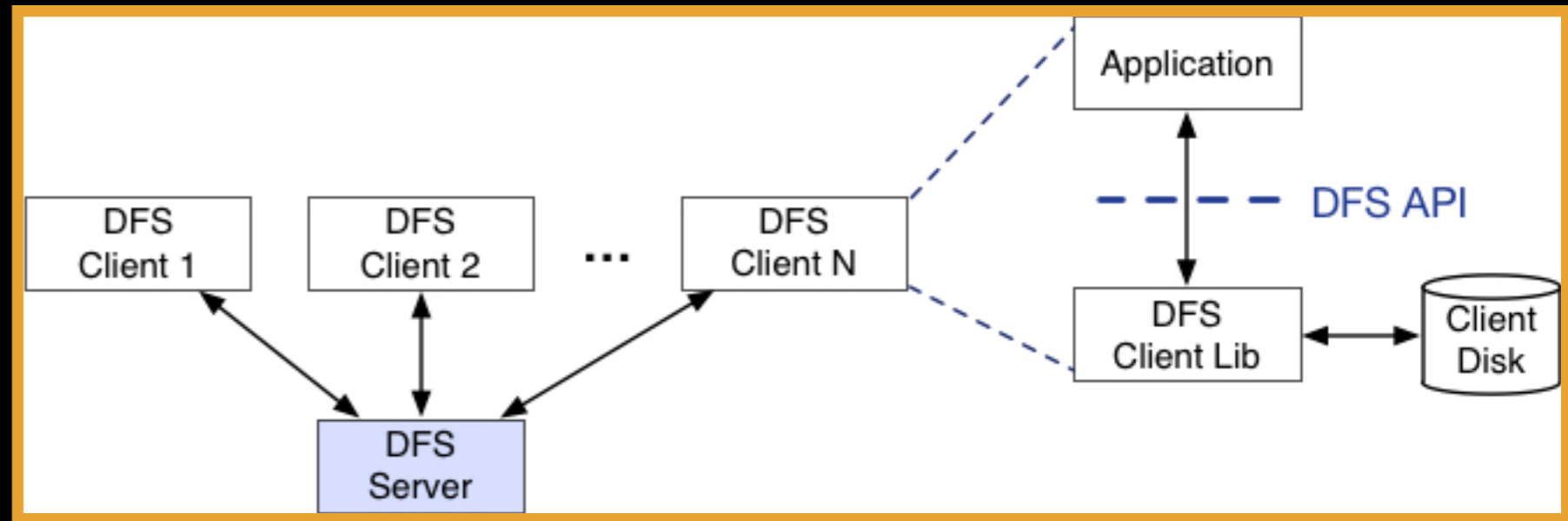
# Failure (cross-cutting)

- What failures are outside the scope of what the system can deal with?
- Can the network fail, how? How does the system respond?
- Can nodes in the system fail, how? How does the system respond?
- Can clients fail? How does that impact the system?
- Can the system provide graceful degradation?
- Is there fate sharing in the system? Between what roles?



# Failure

## A2



- What failures are outside the scope of what the system can deal with?
- Can the network fail, how? How does the system respond?
- Can nodes in the system fail, how? How does the system respond?
- Can clients fail? How does that impact the system?
- Can the system provide graceful degradation?
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# Recap

- What do you need to think about when designing a distributed system?
  - System API
  - Node roles
  - Network
  - System state
  - Failures

Thank you for  
participating in  
416 this term!