

## prelab06\_ee364b13

### Part 1: Regular expressions (warm-up)

1. `re.search("(\\s){1}(A){2,5}(\\s){1}", input)`
2. `re.sub("-?(\\d+).(\\d+)", "float", input)`
3. `re.subn("-?(\\d+).(\\d+)", "float", input)[1]`
4. 

```
extract_int = re.findall("-?\\d+", input)
ind = 0
while ind < len(extract_int):
    extract_int[ind] = int(extract_int[ind])
    ind += 1
avg = sum(extract_int)/len(extract_int)
```
5. `re.sub(r"EE364",r"EE461", input, 1)`
6. `isvalid = all((ip.isdigit() and int(ip)<=255 and int(ip)>=0) for ip in re.split(r"[.]", address.strip()))`
7. a) It searches whether alphabet "e" is in the input string case insensitively.  
  
b) It matches the input string in the format of A is a B and group result into 3 groups: A, "is a" and B.  
  
c) It matches the input string in the format of A is a B and group result into 3 groups with names: group "First" is A, group "Second" is "is a" and group "Third" is B.  
  
d) It searches whether the input string has exactly one "I" followed by 10 or more "like" followed by 1 or 2 "you". An example can be:  
    "Ilikelikelikelikelikelikelikelikelikelikelikeyouyou".