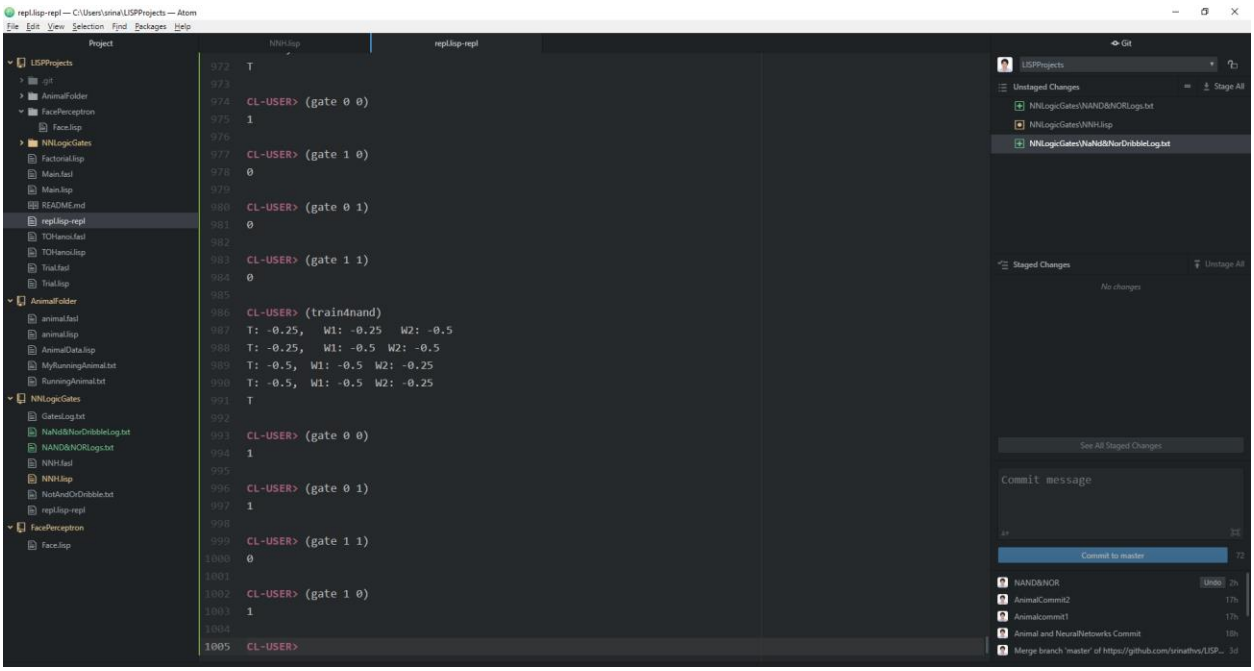
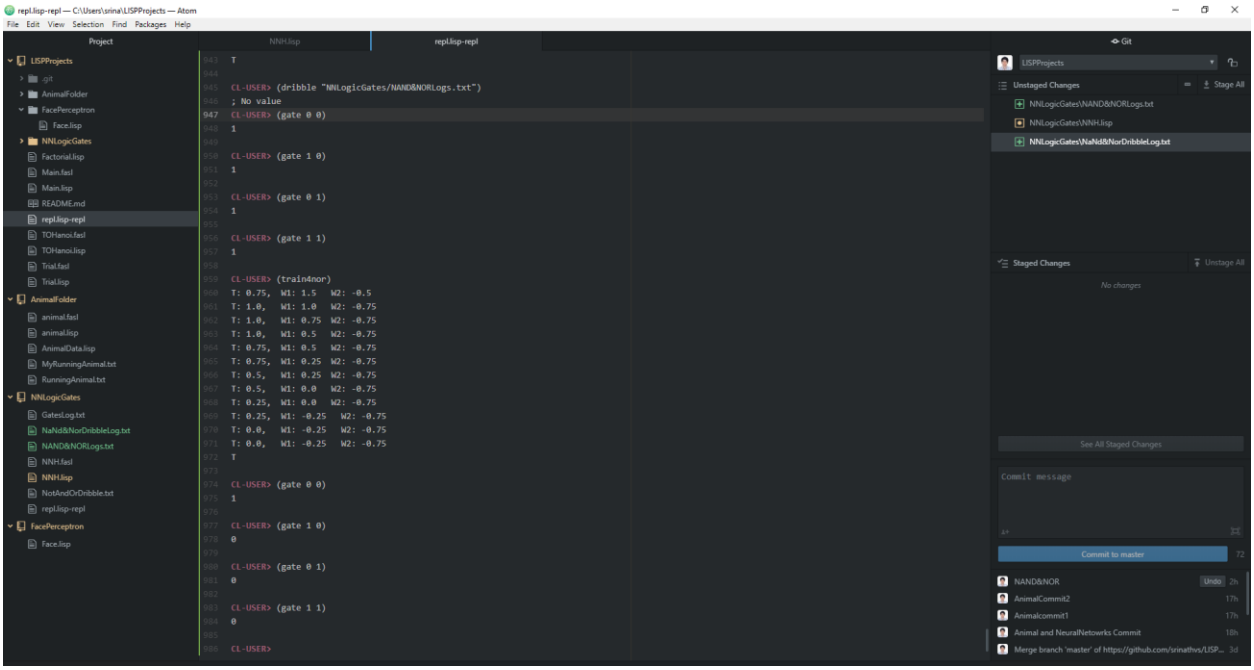
Srinath.V.S Date : 4/17/2020



NAND Gate-Training



NOR Gate-Training

Srinath.V.S Date : 4/17/2020

```
; caught WARNING:
;   undefined variable: COMMON-LISP-USER::W2
;
; compilation unit finished
;   Undefined variables:
;     THRESHOLD W1 W2
;   caught 3 WARNING conditions
T: 0, W1: 2 W2: 2
T

CL-USER> (new-rand)
T: 1, W1: 0 W2: 1
NIL

CL-USER> (notgate 0)
0

CL-USER> (notgate 1)
0

CL-USER>
```

NOT Gate – Untrained and Random Weights and threshold initialization.

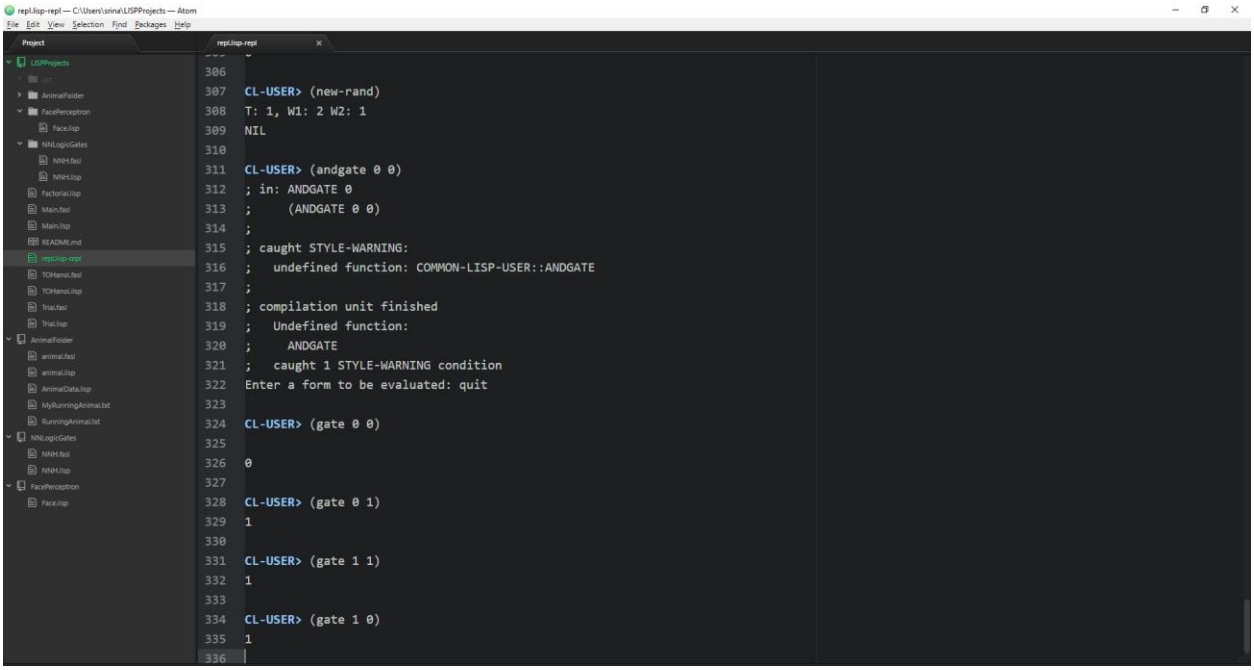
```
CL-USER> (train4not)
T: 0.75, W1: 0.0
T: 0.5, W1: 0.0
T: 0.25, W1: 0.0
T: 0.25, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
T: 0.0, W1: -0.25
NIL

CL-USER> (notgate 0)
1

CL-USER> (notgate 1)
0
```

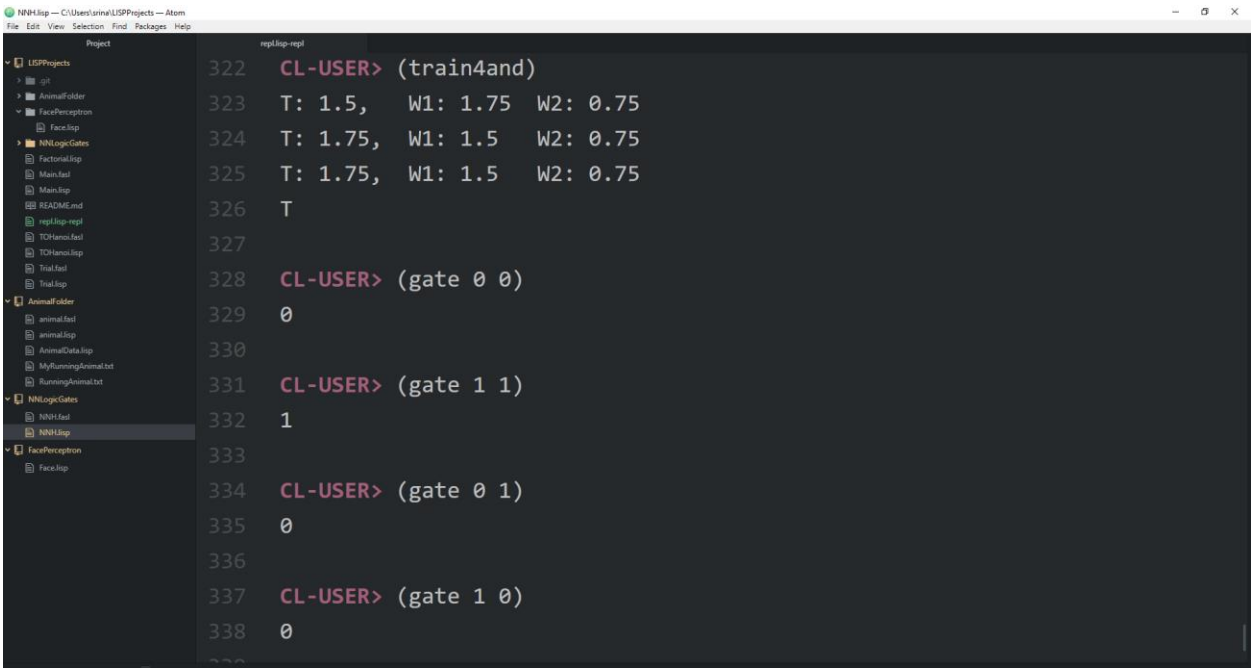
NOT Gate -trained.

Srinath.V.S Date : 4/17/2020



```
306
307 CL-USER> (new-rand)
308 T: 1, W1: 2 W2: 1
309 NIL
310
311 CL-USER> (andgate 0 0)
312 ; in: ANDGATE 0
313 ;     (ANDGATE 0 0)
314 ;
315 ; caught STYLE-WARNING:
316 ;   undefined function: COMMON-LISP-USER::ANDGATE
317 ;
318 ; compilation unit finished
319 ;   Undefined function:
320 ;     ANDGATE
321 ;   caught 1 STYLE-WARNING condition
322 Enter a form to be evaluated: quit
323
324 CL-USER> (gate 0 0)
325
326 0
327
328 CL-USER> (gate 0 1)
329 1
330
331 CL-USER> (gate 1 1)
332 1
333
334 CL-USER> (gate 1 0)
335 1
336
```

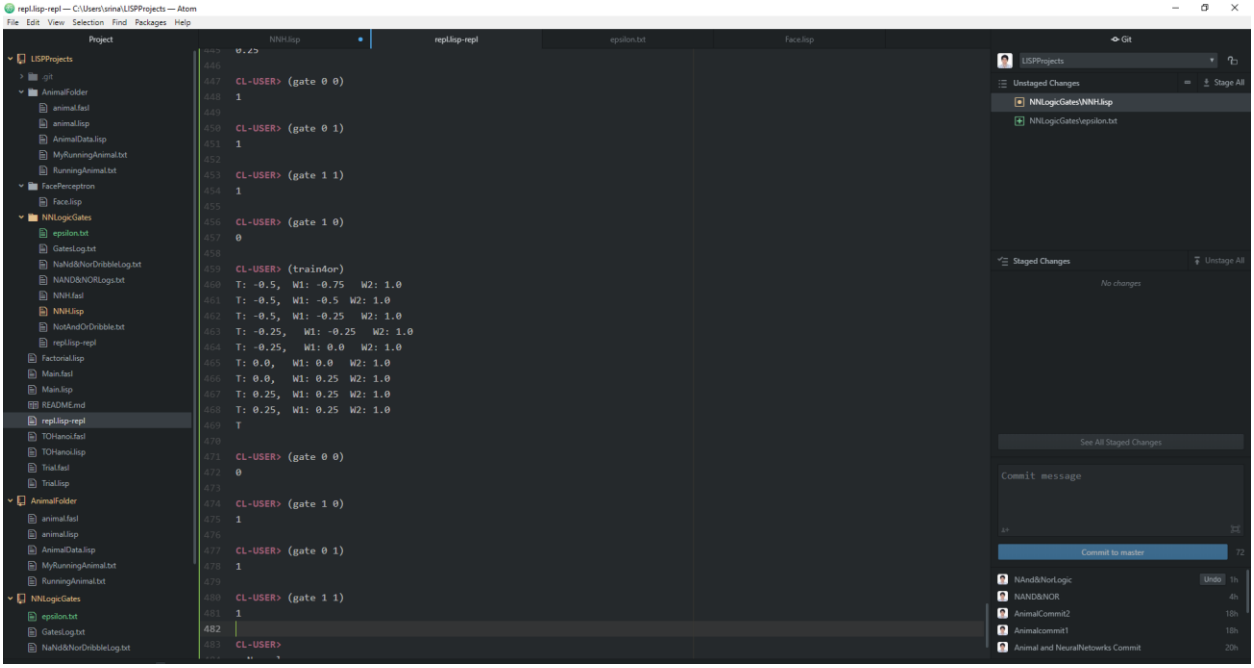
AND Gate-Untrained



```
322 CL-USER> (train4and)
323 T: 1.5,   W1: 1.75  W2: 0.75
324 T: 1.75,  W1: 1.5   W2: 0.75
325 T: 1.75,  W1: 1.5   W2: 0.75
326 T
327
328 CL-USER> (gate 0 0)
329 0
330
331 CL-USER> (gate 1 1)
332 1
333
334 CL-USER> (gate 0 1)
335 0
336
337 CL-USER> (gate 1 0)
338 0
```

And Gate- Trained.

Srinath.V.S Date : 4/17/2020



OR Gate Training.