



File Edit View Search Terminal Help

```
matt@localhost:~/Documents/CE 110/HW5$ ./hwcode 1 && ./hwcode 2 && ./hwcode 4 && ./hwcode 8 && ./hwcode 16 && ./hwcode 32 && ./hwcode 64 && ./hwcode 128 && ./hwcode 256 && ./hwcode 512 && ./hwcode 1024
Using 1 tiles per row/column
```

```
Initializing Matrices...
Done!
```

```
Running matmul...
Done!
Matmul took 9.700223 seconds to execute.
```

```
Transposing Matrix...
Done!
```

```
Running matmul_tiles...
Matmul_tiles (with B transposed) took 1.809157 seconds to execute
Verify status 0
Speedup of 436%
Using 2 tiles per row/column
```

```
Initializing Matrices...
Done!
```

```
Running matmul...
Done!
Matmul took 9.898625 seconds to execute.
```

```
Transposing Matrix...
Done!
```

```
Running matmul_tiles...
Matmul_tiles (with B transposed) took 1.893950 seconds to execute
Verify status 0
Speedup of 422%
Using 4 tiles per row/column
```

```
Initializing Matrices...
Done!
```

Done!  
Matmul took 9.718145 seconds to execute.

Transposing Matrix...  
Done!

Running matmul\_tiles...  
Matmul\_tiles (with B transposed) took 1.750470 seconds to execute  
Verify status 0  
Speedup of 455%  
Using 8 tiles per row/column

Initializing Matrices...  
Done!

Running matmul...  
Done!  
Matmul took 9.602581 seconds to execute.

Transposing Matrix...  
Done!

Running matmul\_tiles...  
Matmul\_tiles (with B transposed) took 1.726864 seconds to execute  
Verify status 0  
Speedup of 456%  
Using 16 tiles per row/column

Initializing Matrices...  
Done!

Running matmul...  
Done!  
Matmul took 9.772853 seconds to execute.

Transposing Matrix...  
Done!

Running matmul\_tiles...

Running matmul\_tiles...

Matmul\_tiles (with B transposed) took 1.635680 seconds to execute

Verify status 0

Speedup of 497%

Using 32 tiles per row/column

Initializing Matrices...

Done!

Running matmul...

Done!

Matmul took 9.547936 seconds to execute.

Transposing Matrix...

Done!

Running matmul\_tiles...

Matmul\_tiles (with B transposed) took 1.507906 seconds to execute

Verify status 0

Speedup of 533%

Using 64 tiles per row/column

Initializing Matrices...

Done!

Running matmul...

Done!

Matmul took 9.722975 seconds to execute.

Transposing Matrix...

Done!

Running matmul\_tiles...

Matmul\_tiles (with B transposed) took 1.298822 seconds to execute

Verify status 0

Speedup of 648%

Using 128 tiles per row/column



```
Initializing Matrices...
```

```
Done!
```

```
Running matmul...
```

```
Done!
```

```
Matmul took 9.761557 seconds to execute.
```

```
Transposing Matrix...
```

```
Done!
```

```
Running matmul_tiles...
```

```
Matmul_tiles (with B transposed) took 1.209095 seconds to execute
```

```
Verify status 0
```

```
Speedup of 707%
```

```
Using 256 tiles per row/column
```

```
Initializing Matrices...
```

```
Done!
```

```
Running matmul...
```

```
Done!
```

```
Matmul took 9.725228 seconds to execute.
```

```
Transposing Matrix...
```

```
Done!
```

```
Running matmul_tiles...
```

```
Matmul_tiles (with B transposed) took 1.162334 seconds to execute
```

```
Verify status 0
```

```
Speedup of 736%
```

```
Using 512 tiles per row/column
```

```
Initializing Matrices...
```

```
Done!
```

```
Running matmul...
```

```
Done!
```

```
Matmul took 9.662228 seconds to execute.
```

Running matmul\_tiles...

Matmul\_tiles (with B transposed) took 1.162334 seconds to execute

Verify status 0

Speedup of 736%

Using 512 tiles per row/column

Initializing Matrices...

Done!

Running matmul...

Done!

Matmul took 9.662228 seconds to execute.

Transposing Matrix...

Done!

Running matmul\_tiles...

Matmul\_tiles (with B transposed) took 1.675099 seconds to execute

Verify status 0

Speedup of 476%

Using 1024 tiles per row/column

Initializing Matrices...

Done!

Running matmul...

Done!

Matmul took 9.764717 seconds to execute.

Transposing Matrix...

Done!

Running matmul\_tiles...

Matmul\_tiles (with B transposed) took 2.958409 seconds to execute

Verify status 0

Speedup of 230%

matt@localhost:~/Documents/CE 110/HW5\$