

## **GIL KEIDAR**

B.S. COMPUTER SCIENCE (4<sup>TH</sup> YEAR) 3.989 GPA

### **PROFILE**

Enthusiastic problem solver, creative programmer, hard worker, and fast learner. Enjoys designing and implementing algorithms.

#### **CONTACT**

keidar.gil@gmail.com

https://gil-keidar.netlify.app/

LinkedIn:

https://www.linkedin.com/in/gilkeidar/

GitHub:

https://github.com/gilkeidar

(858) 284 6672

5064 Manor Ridge Lane

San Diego, California, 92130

### **HOBBIES AND INTERESTS**

- Apple II Programming
- Classical music composition
- Piano performance
- Tai Chi Chuan
- Hiking and traveling in nature

## **PROJECT**

# **BYTEFROST (Homebrew 8-BIT BREADBOARD CPU)**

Designed and built CPU and computer using discrete logic gates and integrated circuits on breadboards. Wrote an assembler in C. Designed an instruction set and assembly language from scratch. Developed display driver card using Arduino Nano. Programs I wrote for it: Eight Queens Problem (all solutions) in 5 seconds; Binary Search Tree recursive insert and traversal using hardware stack.

GitHub: <a href="https://github.com/gilkeidar/ByteFrost">https://github.com/gilkeidar/ByteFrost</a>
YouTube: <a href="https://www.youtube.com/@bytefrost">https://www.youtube.com/@bytefrost</a>

# **KURAMA (Application-Specific 9-BIT FPGA CPU)**

Designed and implemented a 9-bit (9-bit ISA, 8-bit data word) CPU using SystemVerilog. Optimized CPU for three specific programs (includes non-general instructions for this purpose). Architecture is unique to address 9-bit instruction word restriction. Wrote an assembler in Java. Designed 9-bit ISA from scratch. (Project code available upon request; not public since it's a university course project)

# **EXPERIENCE**

# INTERNSHIP AT CYBER@BGU

FEBRUARY 2020 – JUNE 2020

 Used MediaWiki's API and graphing libraries with JavaScript to create a graph-based navigation tool, and augmented the default search engine to include tags using the MVC design pattern and jQuery

## **EDUCATION**

### **BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

UNIVERSITY OF CALIFORNIA, SAN DIEGO EXPECTED GRADUATION IN MARCH 2025 **PROVOST HONORS** IN 6 QUARTERS

## **KEY SKILLS AND CHARACTERISTICS**

- Proficient in programming in C, C++, and Java
- Familiar with ARM assembly, Python, SystemVerilog, C#, JS
- 3.989 GPA
- A+ in Design and Analysis of Algorithms, Theory of Computability, and Introduction to Computer Architecture

### General Information

Student: Keidar, Gil PID: A16122745

Student Level: UN

College: Earl Warren College Major: Computer Science Intended Degree: Bachelor of Science

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## Academic History

### **Academic Events**

**Event** UC ENTRLVL WRITNG REQT SATISFD AMER HIST& INST REQT SATISFIED

Date 09/10/2020 12/11/2020

UCSD Undergraduate Courses by Subject										
Term	Subject	Course	Course Title	Units	Grade	Repeat				
FA20	CSE	11 🙃	Accel. Intro to Programming 🕄	4.00	A+ 🚯					
WI21	CSE	12 🚯	Basic Data Struct & OO Design 1	4.00	A+ 🚯					
WI21	CSE	15L 🐧	Software Tools&Techniques Lab	2.00	A+ 🚯					
WI21	CSE	20 🚯	Discrete Mathematics 1	4.00	A 🚯					
SP21	CSE	21 🚯	Math/Algorithm&Systems Analys 13	4.00	A+ 🚯					
SP21	CSE	30 🚯	Computer Organiz&Systms Progrm	4.00	A+ 🚯					
FA21	CSE	100 🚯	Advanced Data Structures   1	4.00	A+ 🚯					
S223	CSE	101 🚯	Design & Analysis of Algorithm 13	4.00	A+ 🚯					
FA22	CSE	103 🚯	Practical Intro/Prob & Stats 6	4.00	A+ 🚯					
SP22	CSE	105 🚯	Theory of Computation	4.00	A+ 🚯					
SP23	CSE	110 🚯	Software Engineering	4.00	A 🚯					
FA23	CSE	120 🚯	Princ/Computer Operating Systm	4.00						
WI23	CSE	130 🚯	Progrmng Lang:Princpl&Paradigm 📵	4.00	A+ 🚯					
S123	CSE	134B 🚯	Web Client Languages 📵	4.00	A+ 🚯					
WI22	CSE	140 🚯	Component&Desgn Tech/Digtl Sys 6	4.00	A+ 🚯					
WI22	CSE	140L 🚯	Digital Systems Laboratory 1	2.00	A 🕄					
WI23	CSE	141 🚯	Intro/Computer Architecture	4.00	A+ 🚯					
WI23	CSE	141L 🚯	Project/Computer Architecture	2.00	A 🙃					
SP22	ECE	15 🚯	Engineering Computation	4.00	A+ 🚯					
FA21	JAPN	10A 🚯	First Year Japanese I 📵	5.00	A 🚯					
WI22	JAPN	10B 🚯	First Year Japanese II 🐧	5.00	P 🙃					
FA22	LIGN	5 🚯	Linguistics of Invented Lang	4.00	A+ 🚯					
FA22	LIGN	7 🙃	Sign Languages&Their Cultures 3	4.00	A+ 🚯					
WI23	LIGN	101 🚯	Introduction/Study of Language   1	4.00	P 🙃					
S121	MATH	18 🚯	Linear Algebra 🐧	4.00	A+ 🚯					
FA20	MATH	20C 🕄	Calculus&Analyt Geom/Sci&Engnr	4.00	A 🕄	TC				
FA21	MUS	9 🚯	Symphony 13	4.00	A+ 🚯					
WI21	MUS	12 🚯	Opera 🐧	4.00	A+ 🚯					
FA23	MUS	171 🙃	Computer Music I 1	4.00						
WI22	PHYS	2A 🚯	Physics-Mechanics 3	4.00	A+ 🚯					
SP22	PHYS	2B 🚯	Phys-Electricity and Magnetism 3	4.00	A+ 🚯					
S122	POLI	27 🚯	Ethics And Society I 1	4.00	A 🙃					
FA20	WCWP	10A 🚯	The Writing Course A 13	4.00	A 🙃					
SP21	WCWP	10B 🚯	The Writing Course B 6	4.00	A- 🚯					

Cumulative Summary										
Grade Option	UC-Crdts Attm	Crdts Pssd	UC-GPA Crdts	UC-Grade Points	UC-GPA					
Letter	115.00	117.00	111.00	442.80	3.989					
P/NP	9.00	33.00	0.00	0.00	0.000					
TOTAL	124.00	150.00	111.00	442.80	3.989					

Total Upper Division Units: 44.00

Excludes work in progress.