

# Ivan Oligarchs

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## Education

### University of California

College of Engineering-B.S. in Computer Science

Anticipated graduation: Dec 2025

Cumulative GPA: 3.95/4.00

Eberly College of Science-B.S. in Mathematics, System Analysis

- Relevant Coursework: Data Structure & Algorithms, Computer Organization and Design, Systems Programming, AI, Computer Vision, Quantum Computation, Database Management Systems, Programming Languages Concepts, Operating Systems, Object Oriented Programming, Discrete Mathematics, Numerical Analysis, Linear Programs, Linear Algebra, Theory of Games, Real Analysis, Blockchain, Probability Theory

## Projects

### Personal Website and Terminal-Like Profile

Dec 2022 - Current

- Created an about me website from scratch using HTML, CSS, and JavaScript
- Provided an interactive terminal-like portal which outputs information about myself based on the user's command line input

### Tadbeer Agency- A Private Recruitment Agency Licenses for Domestic Workers

May 2022 - Current

- Worked directly with vendors to cut infrastructure costs by 40% while keeping specifications high
- Installed desktop computers, server, networks, safety systems and Q-Matic system
- Implemented a channel for service provision such as a website, call center and a recruitment platform

### Real Estate Database Application

Fall 2022

- Designed and developed an application to post a list of houses online
- Implemented a http interface to the database using php

### Chat Application

Summer 2022

- Implemented a chat application with client and server components and an interactive GUI

### Field-Programming Gate Array (FPGA) MIPS Five Stage Pipelined CPU

Fall 2021

- Utilized Xilinx Vivado software to implement a mini-CPU written in Verilog on a xc7z010clg400-1 device
- Mitigated data hazards and increased performance by implementing instruction forwarding

### Room Scheduler

Summer 2021

- Wrote a java application to facilitate room reservations
- Features: adding a new room, cancelling a reservation, adding a new date, checking status, dropping a room, interactive GUI

### Blockchain Network Simulation

- Implemented a mock-up of a blockchain that can mine new blocks, create randomized transactions, and view how the Blockchain appends and hashes said transactions in real time
- Modified the implementation of a blockchain to include a modified Proof-of-Stake algorithm, where nodes count the number of transactions that they initiate and generate trust for themselves as a node.

## Experience

### Customer Service Executive- Municipality

June 2017 – July 2017

- Completed 6,000 transactions covering permits, leases, licenses, projects, plots, contracts, certifications
- Contributed to increasing customer satisfaction at 93%
- Assisting customers with filling out forms and completing paperwork

## Presentations

### Wildlife Conservation Using Drones to Track Wildlife Incidents

Fall 2022

## Skills

- Java, Python, C#, C, HTML, CSS, JavaScript, TypeScript, Verilog, KQL, SQL
- React, OpenCV, Kali Linux, Honeycomb, OpenTelemetry, SQLMap, Hashcat
- Docker, VirtualBox, Android Studio, Firebase Realtime Database, Parse Server, GitHub, Burp, Vivado, Power BI
- Fluent in English, Russian