Nathaniel Kamal

626-988-3477 | nathaniel.kamal13@gmail.com | linkedin.com/in/nathanielkamal | github.com/Dossr-NK | Temple City, CA

Education

California State University, Fullerton – Fullerton, CA Expected Graduation: May 2026

Bachelor of Science, Computer Science and Bachelor of Arts, Applied Mathematics *GPA: 3.68/4.0*

Coursework: OOP, Data Structures, Algorithms, Operating Systems, File Structures and Databases, Differential Equations and Linear Algebra, Statistics, Math Structures, Calculus III, Cyber Security

Experience

STEP Intern May 2023 – August 2023

Google *Mountain View, CA*

- Implemented 2 full **C++** backend data processing pipelines for text ads and image ads, facilitating seamless ad processing
- Leveraged internal libraries and distributed computation to efficiently query databases and compute ad embedding
- Produced advertiser asset dataset, enabling expedited experimentation and training for machine learning models
- Ensured scalability by testing both pipelines simultaneously and utilizing 100 to 10,000 ads with processing times of 3 minutes to 12 minutes for collections of ads
- Conveyed pipeline creation process in internal design documentation, includes explanation of test cases
- Collaborated with co-intern to complete both pipelines and communicated with other teams to resolve permission issues

Projects [Github]

Bank Management System App | *C, CMake* | [Github] September 2023 – October 2023

- Implemented an offline user management system in **C** with functions for login, registration, and user management
- Designed an account management system enable a user to create, delete, and access card data within their account
- Utilized file I/O to store and retrieve user data, ensuring information is saved between program runs

Tic-Tac-Toe | *Java, Java Swing* | [Github] August 2022 – December 2022

- Developed a **Java**-based Tic Tac Toe game with modular logic components for enhanced functionality
- Crafted an intuitive user interface deploying **Java Swing** to ensure smooth player interaction
- Applied OOP principles to construct a structured, maintainable, and extensible design for the Tic Tac Toe game

Calculator | *Java* | [Github] June 2022 – July 2022

- Orchestrated development of a calculator to execute a total of 17 mathematical equations
- Structured code to efficiently iterate through an array of switch cases to invoke each equation
- Conducted testing with 5 test cases to verify stability and reliability of code

Hangman | *Java* January 2021 – May 2021

- Developed a **Java** game utilizing a graphical user interface (GUI) and leveraging acquired knowledge over the year
- Conceptualized 3 game ideas, presenting each to instructor for approval, and selecting most suitable project based on given prompt
- Implemented both front-end and back-end functionalities leveraging **Java**

Technical Skills

Languages: Java | Python | C/C++ | SQL | R | LaTeX
Frameworks: Java Swing | JUnit | Abseil | Google Test
Libraries: Protocol Buffers | Google Mock
Developer Tools: Git | GitHub | CMake | Bazel | VS Code | PyCharm | IntelliJ | Eclipse | RStudio | CLion