Kavin Suraj Jeyasankar

LinkedIn | GitHub | 720-757-9729 | kavin11205@gmail.com

Education

Bachelor of Science **Colorado School of Mines** **Golden, CO, USA** **08/2021-12/2024**

- Major: Computer Science Focus Area: Computer Engineering GPA: 3.52

Work Experience

Charles Schwab: *Software Engineering Intern* **06/2024 – Current**

- Led the design of a web application to efficiently choose the proper delivering service for notifications on all Charles Schwab applications with Angular, Kafka, C# / .NET, and MongoDB improving user experience of 34.8+ million users.
- Spearheaded the redesign of existing applications for the Digital Messaging (DM) team, incorporating more scalable architecture that improved user interfaces and extended the software's operational lifespan.
- Developed and integrated a RESTful API for the digital messaging platform, ensuring seamless communication with external vendors and assisting with client experience and saving 100K+ dollars yearly.
- Actively contributed to the execution of SDLC best practices by participating in daily scrum meetings, conducting thorough code reviews, and promoting continuous integration and delivery processes.

The Center for Hydrate Research: *Software Engineering Intern* **08/2023 – 05/2024**

- Designed and modernized one-of-a-kind software used to predict stability of hydrates in nature using the latest technologies available with C++ version 20.
- Significantly optimized existing software through implementation of C++ 20 features like lambda functions, transforms, and ranges to bring runtimes from 1 hour on older versions down to 4 seconds.
- Continuous code reviews, professional benchmarking/unit testing frameworks, compile time evaluations leveraged to produce optimal results for industry success.

FTC Robotics: *Software Engineering Mentor* **08/2021 – 04/2022**

- Led the team to 2nd place in the state championship while teaching path following algorithms and frameworks such as pure pursuit as well as Java programming principles.
- Utilized real time computer vision such as OpenCV to improve spatial awareness and performance of our robot.
- Implemented odometry to significantly improve position accuracy with variation per trial reducing from an average of 11.8 inches of variation to 3.4 inches of variation, an improvement of 71%.

Projects

Shuffle - Social Media Application (~21,000 lines) – Full-stack

- Developed a full-scale social media application end-to-end with content created and operated entirely by artificial intelligence (openai API) and containerized with Docker.
- Utilized Google Cloud Platform (GCP) services (Cloud Run, Pub/Sub, Buckets, Artifact Registry) for creating secure and scalable architecture, storage, and deployment for 10+ monthly users.
- Designed and seamlessly integrated a NextJS frontend responsible for responsive user interfaces, Google Firebase for real-time data handling and secure user authentication, and Python for server-side logic and API development.

AI Board Game (~7,000 lines) - Java

- Designed and developed Clue board game (Java/Eclipse) with clean and complete UI as well as clean and modular code with the implementation of OOP principles and SOLID programming principles.
- Created artificially intelligent computer players to make smart decisions derived from human players movement, accusations, and suggestions.
- Implemented Junit tests to ensure functionality of the code throughout the development process.

Skills

- C++ | Java | Python | C | C# | SQL | HTML | JS | CSS | Unit testing | JFrame | Junit | OOP | Git | RabbitMQ
- PostgreSQL | Google Cloud Platform (GCP) | Firebase | NumPy | Shell Script | Flask | TypeScript | Kafka
- SQLAlchemy | openai API | Bootstrap | React.js | .NET | Next.js | Express | MongoDB | Angular | Agile