Sitong Lu

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Summary

Second-year master's student majoring in Computer Science at University of Colorado Boulder. Led the creation of various Java/C++/C/ HTML/Scala/Python/Kotlin-based programs with great enthusiasm over the past five years of studies, either as short solo projects of a few days or as semester-long group projects. Created a number of unique and original functionality
Personal website with detailed project descriptions and linguistics-related works: https://akitomoya616.github.io/

Education

University of Colorado Boulder, **Master of Science - MS, Computer Science**   Expected May 2023
  • GPA Achieved: 4.0 / 4.0 (Overall) with sub-plan: Software Systems and Cloud Computing Courses
  • Graduate Courses: Computer Graphics, Data Mining, User-Centered Design & Development, Object Oriented Analysis and Design, Machine Learning, Foundations of Software Engineering, Datacenter Scale Computing (Cloud Computing)
  • Current Courses: Biologically-inspired Multi-Agent Systems, Professional Masters Project

University of Colorado Boulder, **Bachelor of Arts - BA, Computer Science**   May 2021
  • Other Major/Minor: Double Major in Mathematics; Minor in Program for Writing and Rhetoric (PWR)
  • GPA Achieved: 3.74 / 4.0 (CS-related), 3.433 / 4.0 (Overall)
  • Key Courses: Data Structure, Calculus 1 for Engineers, Calculus 2, Calculus 3, Computer Systems, Intro to Discrete Mathematics, Linear Algebra for Math Majors, Coding & Cryptography, Database Systems, Human-Centered Computing Professional Development, Algorithms, Software Development Methods and Tools, Fundamentals of HCI
  • Dean's List: Dean's List for Fall 2020 and for Spring 2021

Key Projects

Google Cloud Server, Retail Tracker, https://github.com/akitomoya616/ShopTracker   Oct 2022 - Dec 2022
  • Built using REST, REDIS, MySQL, and DataFrame. An online server for tracking and summarizing shopping history
  • Accomplished with 4 core components: Message Queue, API Interface, Database, and Virtual Machine
  • Designed a unique way to enable message queues in REDIS to avoid causing conflicts in data transmission

Android Application, NewsMe, https://github.com/akitomoya616/NewsMe   May 2022 - Sep 2022
  • Constructed primarily in Java. An Android application demo built through independent learning
  • Implemented a variety of customized functions practiced during self-learning, including navigation drawer menu, scrollable page, outer frame decorator, and API references (for getting daily weather data based on user's IP address)

OO Project Demo, Shop Simulator, https://github.com/addzy94/ooad-project-team   Jan 2022 - Mar 2022
  • Coded in Java and applied with Object-oriented principle. A simulator operates two automated stores (Abstract Factory Pattern) for 30 days. Collaborated with a 3-member team and was responsible for the OO design patterns
  • Automated daily tasks include clearing inventory, withdrawing cash, and selling/buying merchandise from customers
  • Applied Command Pattern to allow users to shop/sell items in the store once per simulation
  • Monitored user input by applying Command Pattern, allowing to shop/sell things in the store once per simulation
  • Applied Decorator Pattern to allow each product sold or acquired to generate a preferential sales/resale price by being tied to specific product; The daily actions of the store staff are documented in the logger file (Observer Pattern)

OpenGL Project, Souls Simulator, https://github.com/akitomoya616/Souls-Game   Oct 2021 - Dec 2021
  • Developed using OpenGL for the first time. An Indie demo of a 3D first-person perspective game
  • Constructed with UI, transparent objects, sky box, collision detection, lighting effects produced by a modified shader, and illusory walls with animated textures. Managed to mimic the game scenario experienced in Souls games

Experience

Software Engineer Intern, QI Path   Boulder, CO, Sep 2022 - Present
  • Acting as a developer building endpoints for public API to connect to 3rd-party systems. Communicating with the front-end developers for exchanging data, information, and even techniques devised in previous turn

Course Manager (CM), University of Colorado Boulder CS Department   Boulder, CO, Aug 2021 - Dec 2021
  • Served as a CM for Fundamentals of Human Computer Interaction for 1 semester. Facilitated class over 100 students
  • Employed to answer students' subject-related questions and summarizing the analyzed result for weekly reports to the professor. On-call since Slack was used for communication with students during Covid-19 pandemic
  • Tended to meet with the course instructor 2 times a week to follow the objectives and assignments given by the professor during the week in order to organize and distribute the documents to the students in a timely manner

Course Assistant (CA), University of Colorado Boulder CS Department   Boulder, CO, Sep 2019 - May 2021
  • Served as a CA for Starting Computing, Data Structure, and Principle of Programming Languages for 2 years
  • Facilitated over 500 students in total. Employed to answer students' CS-related questions, troubleshooting programs and providing students with a better understanding of the course and related code usage concepts on a weekly basis
  • Tended to meet with students 4 times per week to follow students' own ideas and find solutions fit for understanding

Technical Skills

  • Programming Languages: C | C++ | Java | JavaScript | Python | Kotlin | HTML | MySQL | OpenGL
  • Technical: Qt | Android Studio | Heroku | Git | Intellij Idea | Google Cloud | REST API | MinIO | Redis | Kubernetes