Arlyvia Chaialee

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Education

University of Southern California, Los Angeles, CA — **Bachelor of Science, Computer Science**
Viterbi School of Engineering — May 2022

Courses: Algorithms and Theory of Computing, Computer Systems, Data Structures and Object-Oriented Design, Discrete Methods in Computer Science, Linear Algebra, SQL and Databases

Technical Skills

- **Programming Languages**: C, C++, C#.net, DevExpress (XPO, WPF), Java, JavaScript, Python, SQL
- **Dev Tools**: Azure, Atom, Eclipse, git, MATLAB, MySQL, Perforce, ReactJS, SQL Server, Unity, VS, Xcode
- **Clearance and Certification:** COMPTia Security+ Certification, SQL Certification, UAP Security Clearance

Work Experience

Battelle | Laboratory Information Management System (LIMS), Full Stack Software Developer — Oct 2022-Present

- Develop, test, and deploy LIMS for 1,400+ users, fostering extensive knowledge in lab workflow and data management
- Utilize Visual Studio C#, .NET 4.5 Framework, SQL Server, and DevExpress tools to enhance LIMS application
- Collaborate with users to generate user stories, leading to the successful enhancement of over 45 application features
- Oversee development environments, conduct training sessions, and ensure comprehensive documentation for the team

Social Moth, Software Developer — Aug 2021-May 2022

- Developed a polished, playable game now available on Steam using C# and Unity
- Implemented full controller support, player control customization, texture mapping, search algorithms, object collision
- Orchestrated seamless integration of diverse team contributions, spanning art, design, and audio disciplines

OSU Biomedical Research Center, Undergraduate Engineering Intern — Summer 2019

- Assisted engineers in experimentation and data analysis of ex vivo animal eyes with MATLab and ParaView
- Considered the relationship between strain and intraocular pressure to further understand the effects of glaucoma
- Organized the research results and presented the findings to biomedical and clinical researchers

Projects

Dynamic Storage Allocator — 2022

- Constructed a dynamic storage allocator for C programs, i.e.recreated malloc, free, and realloc
- Designed an algorithm that sorts free blocks by size before coalescing, minimizing fragmentation
- Achieved exceptional performance by optimizing throughput and space utilization (P = 91/100)

Cache Simulator — 2022

- Wrote a C program that simulates the behavior of a cache memory using LRU and FIFO policies
- Elevated the cache simulator by adding support for memory access across line boundaries
- Enriched the program with a trace printer that shows cache hits, misses, and executes data

Java Server — 2021

- Developed lookup and primary tables using MySQL to track users, administrators, and passwords
- Practiced secure information handling through hashed passwords using unique salts

Involvement

Laboratory Improvement Team, Lead
Association for Women in STEM, Member
Diversity, Equity, and Inclusion, Member