

Brad Cai

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Work Experience

Software Engineer, ServiceNow

San Diego, California — August 2019 to January 2025

- Worked on multiple customer facing products as a part of ServiceNow's core platform team.
- Added features and fixes to the back end code of the multi-node server using Java, SQL, MariaDB, syntax parse trees, and multithreaded programming.
- Handled front end development work using Javascript, AngularJS, jQuery, CSS, and HTML.
- Lead development and created software architecture plans that were approved by the internal architecture review board.
- Generated performance data and fixed performance issues using Java Flight Recorder and the IntelliJ profiler.
- Wrote tests, triaged tests, and fixed defects within a large code base to improve product stability.

Research Assistant, UC Riverside

Riverside, California — October 2017 to December 2017

- Used C++, Python, and iTensor to create a tool for calculating quantum wave functions.

Technologies and Languages

Computer Graphics

- DirectX 11 / D3D11 and Vulkan graphics APIs.
- Graphics pipeline and real-time rendering techniques.
- Vertex, Fragment, and Compute Shader programming in HLSL and GLSL.
- Unity engine and Godot engine experience.
- Vector math, Linear Algebra, and Trigonometry.

Software Engineering

- C++, C#, C, Java, SQL, Python, Javascript, CSS, HTML.
- Software design principles and patterns.
- Multithreading and asynchronous programming.
- Performance / memory profiling and optimization.
- GNU/Linux environments and command line tools.

Education

Bachelor of Science in Computer Science

UC Riverside - Bourns College of Engineering

Riverside, California — September 2015 to June 2019

- Graduated cum laude with a GPA of 3.63.
- Taken courses in Computer Graphics, GPU Programming, Virtual Reality, Graphics and Electronic Games, Linear Algebra, Concurrent Programming, C++, Intermediate Algorithms, Operating Systems, Data Structures, Software Design, Compiler Design, and Machine Learning.