

# Joon-Won Choi

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## Software Engineer

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- Recent college graduate with passion and solid algorithm skills capable of building software from the concepts and basic design in various environments.
- Team player who always enjoy helping other teammates out, and who also can make progress on his own.
- Developer and analyst with plenty of experience dealing with users who know how to consider user feedback adequately.
- Fast learner, self-starter, and hard worker who always thrives on improving systems.

## TECHNICAL SKILLS

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- Programming Languages: Python, R, JavaScript (ReactJS), NodeJS, Java, C++, SQL, HTML, CSS, C#
- Statistics and Analysis: R, Spark, Hadoop, Pandas,
- Database Systems: MySQL, SQLite, MongoDB,
- Others: Git, Docker, Kubernetes, Photoshop, Vulkan, Windows, Unix, Linux

## EDUCATION

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**California State University, Fullerton**

**Graduated:** May 2019

Bachelor of Science, Computer Science

GPA: 3.30 / 4.0 (CSUF GPA 3.58 / 4.0): Deans List Fall 2017, Spring 2018, Fall 2018

## RELATED COURSEWORK

- Data Structure
- Computational Bioinformatics
- Artificial Intelligence
- Introduction to Computer Security
- Algorithm Engineering
- Operating System and Open Source Projects
- Computer Communications and Network
- Statistics Applied to Natural Science
- Introduction to Data Science and Big Data Analysis

## RESEARCH & PROJECT

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**Simulation of Multi-dimensional Sound Wave in Virtual Fluid Environment**

**Summer 2018 – Present**

- Systematized new algorithmic approach by applying Navier-Stokes equation of fluid motion in a virtual space.
- Evaluated a new approach to represent sound wave transfer in virtual environment to provide a new option to represent sound wave transfer and reflection in various fluids; air, water, vacuum.
- Studied principles of Ray-tracing (RTX) in Computer Graphics Class to mix the idea with hydrodynamics.

**Embedded User Research Information and Knowledge Assistant (EURIKA)**

**Summer 2011 – Present**

- Designed and built an online assistant program that collects data from various Social Networking Services, gaming services, and then analyzed raw data upon user request.
- Devised several development plans based on user feedback to analyze user needs to achieve exemplary user satisfaction. In 2019, EURIKA is serving more than 90,000 queries a day.
- Energetically operated, improved the system over eight years on several platforms, and remodeled the system several times with different languages on different systems.
- Currently serving more than 30,000 unique users, 200,000 queries per day with hope to get better in the future.

**pyMLB, MLBPV** – Python, Pandas, ReactJS, JavaScript, SQL

**Aug 2019 – Feb 2020**

- Developed data analysis and visualizer tool to help analysts and developers to break down Major League Baseball data much easily. Applied Machine Learning algorithms to make expectations on player's performance.