Karen Kong

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EDUCATION

UNIVERSITY OF CALIFORNIA, RIVERSIDE
Computer Science
Graduating in 2018 | GPA: 3.98

COURSEWORK

C++ Object Oriented Programming
Java Objected Oriented Programming
Data Structures & Algorithms
Software Construction
Advanced Discrete Structures
Machine Assembly Language & Computer Organization

TECHNICAL SKILLS

LANGUAGES

C++ (Proficient) • Java (Proficient) • Python (Familiar) • C# (Familiar) • HTML, CSS, Javascript (Familiar)

SOFTWARE

Git & Github • VIM • Android Studio • Unity Game Engine • Visual Studio

LEADERSHIP & ACTIVITIES

University of California Student Congress Delegate
Bourns College of Engineering Day Organizer
Computer Club President (2014-2015)
Assn. for Computing Machinery (ACM)
Society of Women Engineers (SWE)

AWARDS

Entertainment Software Association (ESA) Computer & Video Game Scholarship (2015, 2016) • SWE Admiral Grace Murray Hopper Scholarship (2015) • Southern California National Center for Women & Informational Technology (NCWIT) Award for Aspirations in Computing (2015)

EXPERIENCE

NSF REU INTERNSHIP | Embedded Systems Lab

June 2016 – September 2016 | Riverside, CA

- Graph Algorithms for Microfluidic Chip Design Automation
- Directed placer algorithm that increased area utilization by an average of 35%.
- Seam carving post-processing algorithm that increased area utilization by an average of 33% and decreased route length by an average of 15%.
- Straight path priority, component buffer enforcement, and port assignment optimizations for routing algorithm.
- Paper writing for Asia and South Pacific Design Automation Conference.

GAME DEVELOPER | Brain Game Center

September 2016 – present | Riverside, CA

- Implement features for games in C# using the Unity Game Engine.

RESEARCH ASSISTANT | Embedded Systems Lab

January 2016 - June 2016, September 2016-present | Riverside, CA

- Iterative Expansion Graph Algorithms for the Microfluidic Continuous-flow Framework
- Four algorithms expanding point placement from Chrobak-Payne Straight Line Routing Algorithm to account for areas of components at the points. Increased area utilization up to 23%.
- Corner post-processor that reduces corners on routes to diagonals.

PROJECTS

WALK IN THEIR SHOES | Grand Prize at the 2016 San Diego Women's Hackathon

Java | Android

- In response to the current global refugee crisis, pairs refugees in need of resources to donors that can provide the specified resources and a forum to communicate with available donors.
- Android Studio IDE and Butter Knife libraries used to bind views.

RSHELL | Software Construction

C++ | Linux

- Terminal shell with support from the bin directory, standard connectors, input and output redirection, and piping.
- System calls used for multithreading and executing commands.

AURORA | Hacktech Hackathon 2016

Java | Android

- Virtual reality based real estate application in which agents post listings with images that are then rendered for clients to experience a home tour using an Android device and a Google Cardboard viewer.
- Android Studio IDE, Google Cardboard API used for virtual reality capability, Google Maps API to used capture property locations.