KARAN BALAKRISHNAN

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LinkedIn Profile | github profile

EDUCATION

USC Viterbi School of Engineering   January 2017 - Present
Masters of Computer Science (Current GPA: 3.66)
ACM Member
Courses taken:
- **CSCI 570: Analysis of Algorithms (B+)**
- **CSCI 571: Web Technologies (A)**
- **CSCI 561: Artificial Intelligence (A-)**

BMS Institute of Technology, VTU, Bangalore, Karnataka   Sep 2010 - June 2014
Bachelor of Engineering, Computer Science
Head of Sponsorship & Literature Committee, Utsaha Team

TECHNICAL SKILLS

Languages: Swift, Objective-C, C, C++, Java, SQL, JavaScript, PHP, C#
Operating Systems: Linux, Mac OS and Windows.

PROFESSIONAL EXPERIENCE

SAP LABS, Bangalore, Karnataka   June 2014 – December 2016
Developer Associate | SAP Labs, Business Intelligence and Analytics Division

   As an Assoc. Developer, I worked on the SAP Business Intelligence iOS Application. My main responsibilities involved developing new features. Some of the features I have successfully completed include 1. Custom gestures – using a simple application of data driven machine learning, 2. A custom charting library using Core Graphics and 3. The Push Notification Framework to receive data alerts.

      In the process, I have been involved in implementing design patterns, improving the security and memory management for our application by working extensively on Objective-C and Swift.

ACADEMIC PROJECTS

Iris Recognition (Computer Vision)
         The aim of the project was to improve on the current methods of Iris Recognition by implementing a hybrid algorithm, (a mix of multiple image processing algorithms). The project was executed using EmguCV (**C#** wrapper for OpenCV).
We employed Daugman's and Masek's methods to successfully improve the detection of the Iris under non-ideal conditions. We used both live images of the Iris from a specialized camera and images from a database given to us by Indian Institute of Technology, Delhi.

OpenGL Transformations
         This project was done during my third year at B.M.S Institute of Technology. It was to demonstrate graphics transitions using the OpenGL library. It was coded completely in C++ and the project demonstrated how scaling and transformations in graphics are achieved using the OpenGL tools.

ADDITIONAL INFORMATION

Workshops
Android Application Development Workshop: Five-day workshop on Android Application Development at Li2 Innovations Pvt. Ltd.
SAP Labs: A range of technical training sessions of varied durations at the SAP Labs Campus, Bangalore, covering a range of domains such as Advanced Databases, Advanced Design Patterns and Machine Learning.
Volunteer, Make a Difference Foundation
Conducted and coordinated fundraising drives to benefit orphanages in Bangalore, India