KARAN BALAKRISHNAN

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LinkedIn Profile | Github Profile | Personal Website

EDUCATION

USC Viterbi School of Engineering
Masters of Computer Science (Current GPA: 3.66)
Graduating in December 2018

BMS Institute of Technology, VTU, Bangalore, Karnataka
Bachelor of Engineering**,** Computer Science

TECHNICAL SKILLS

Languages: Swift, Python, Objective-C, C, SQL, JavaScript, PHP, Scala
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 — 2 years 6 months

- Worked as an iOS Developer on the SAP BI iOS Application
  - Using Objective-C and Swift extensively
- Built a custom charting framework from scratch using Core Graphics
  - A dynamic framework, right from design to implementation of 4 classes of charts.
- Push Notifications
- Custom Animations
- Customized Gesture support to handle JavaScript and iOS interaction
- Performance and Memory optimizations for various features

Honors and Awards

- **Vice-President award**
  - Awarded for Outstanding contribution towards the development of the native iOS Charting Framework
- **Awarded six team level spot awards for contribution to various projects**

ACADEMIC PROJECTS

Facebook Search

- Built a custom Facebook search application using Facebook Graph API
- Pulled recent posts and albums of users, groups, events, etc.
- AWS backend – built with PHP
- Two versions of the front-end
  1. Web - Built using AngularJS and Bootstrap
  2. iOS - Built with Swift

Adversarial Constraint Satisfaction by Game-tree Search

- Minimax algorithm with Alpha-Beta Pruning
- Built with Python

Sentiment Analysis

- Built a Sentiment analyzer for Amazon reviews using Mathematica
- Three versions using: 1. Neural Networks, 2. Decision Trees (Random Forest) and 3. Naïve Bayes.
- Used different pre-processing methods to compare performance

Iris Recognition (Computer Vision)

- Built a hybrid algorithm, to improve on iris segmentation under non-ideal conditions
- Built using EmguCV (C# wrapper for OpenCV)

SIDE PROJECTS

Personal Website - https://hitmank.github.io/

- Built with a mix of Vanilla JavaScript, JQuery, Bootstrap and other libraries

Space Commute

- iOS game available on the app store
- Built with Swift using iOS SpriteKit