

# CSUN University Calendar

Sachin Bhalekar  
Sumit Jawale





# Overview



## Academic

Alumni

Art

Ceremony/Reception

### Civic Engagement

Event

## Exhibition

Family Friendly

Film

Guest Speaker

## Health and Wellness

Lecture/Panel/Debate/Seminar

## Music

Other

Professional Development

## Student Life

## Theatre

## Workshop

## Featured

### Mimi Chen: Making It in the Competitive World of Radio

Tuesday, March 13, 2018 - 11:00am to 12:15pm



Mimi Chen is known as an FM rock radio disc jockey who has worked in Trenton, Philadelphia, San Francisco, and Los Angeles. While KDBK-FM, San Francisco, she became the first Asian-American talk radio host in an English speaking format, in the midday time slot. She currently [Read more](#)

The African Company presents Richard III

Friday, March 9, 2018 - 7:30pm to Sunday, March 18, 2018 - 2:00pm



Forty years before the Civil War, the African Grove Theatre Troupe in New York sets about staging a production of Richard III. But when a major (and white) New York company scores a big name star to be featured in their own production of Richard, they are determined to shut down the African company's show at any cost. [Read more](#)

### Mimi Chen: Making It in the Competitive World of Radio

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## Humanities Advocacy Day

Tuesday, March 13, 2018 - 11:00am



Please join us for the First Annual Humanities Advocacy Day. Imark Lopez, M.A. Chican@ Studies and winner of the Goldman Environmental Prize, will be the keynote speaker. In addition there are two program options: a) a workshop on Humanities career options and panel discussion, and b) a tour of the CSUN Leed Platinum Sustainability Center. [Read more](#)

# Business Issue

- Ask a friend or faculty
- Visit CSUN website
- Visit again for changes
- Importing calendar remains static



# Solution

- Use of Voice activated systems
- Develop an Alexa skill
- Get info by asking Alexa
- No browsing required



# Alexa skill checklist

1. **Invocation Name**
2. **Intents, Utterance, and Slots**
3. **Build Model**
4. **Set Endpoint**





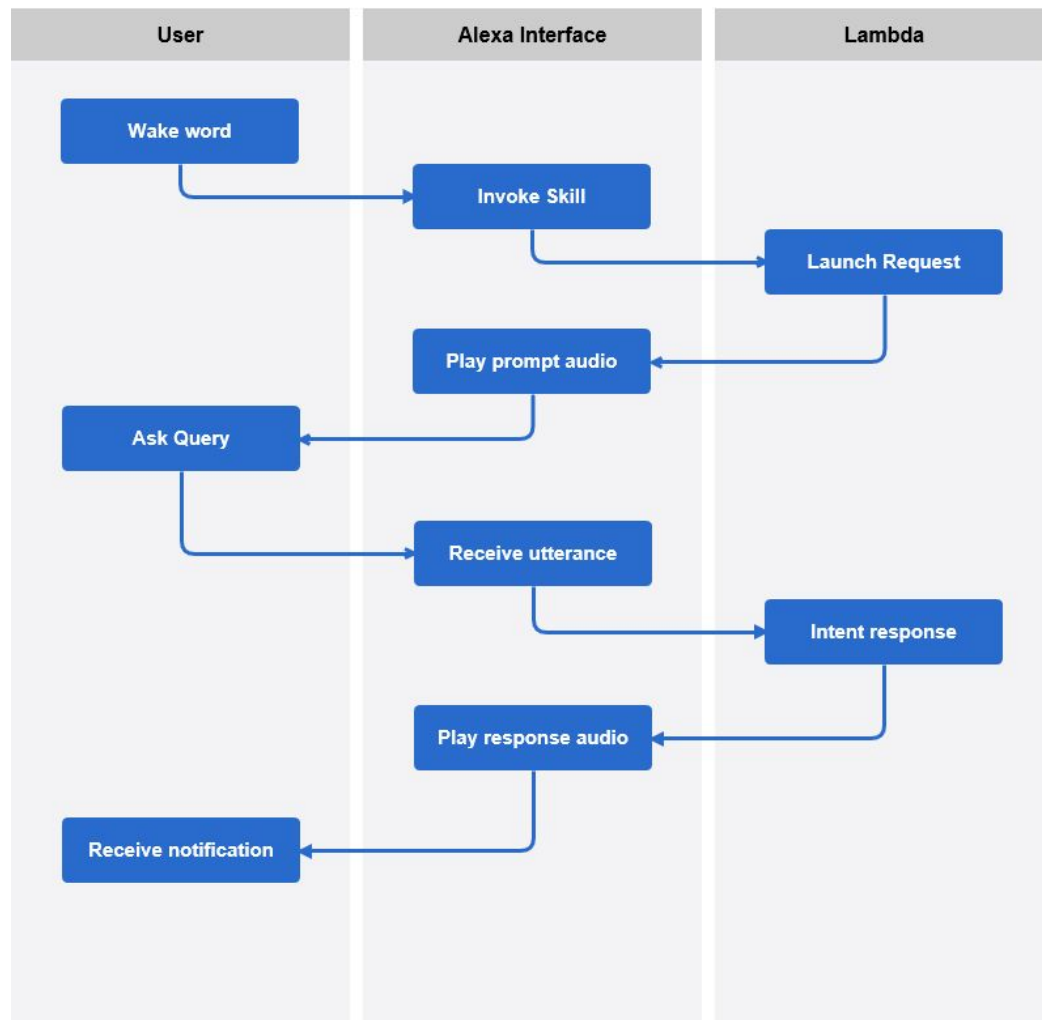
# CSUN Calendar

# Build up till now

- Register with Amazon account (AWS and Alexa Skills Kit)
- Set up an AWS Lambda endpoint
- Create a new Alexa skill
- Add sample utterances and intents







open c sun calendar



Welcome to CSUN Calendar! The skill that gives you all the information on events at CSUN. There are total 15 upcoming events at CSUN. Which one would you like to know about?

tell me abot event on friday



There is 1 event on 3-9 . Would you like to know more about this event?

tell me more about this event



Education on the Edge with Thomas C. Murray at USU on 3-9. Would you like to know about other events?

# Technology Stack

- Node.js (along with alexa-sdk module)
- JSON
- AWS Lambda
- Alexa Skills Kit (Developer Account)





# Sample code snippets

# Sample code snippet(node.js) in AWS Lambda

```
var Alexa = require('alexa-sdk');
var AmazonDateParser = require('amazon-date-parser');
// Data
var csunEvents = require('./data/CSUNEvents');

// Helpers
var convertArrayToReadableString = require('./helpers/convertArrayToReadableString');

exports.handler = function(event, context, callback){
  var alexa = Alexa.handler(event, context);
  alexa.registerHandlers(handlers);
  alexa.execute();
};

var handlers = {

  'NewSession': function () {

    var csunEventNumber = csunEvents.length;

    this.emit(':ask', `Welcome to CSUN Calendar! The skill that gives you all the information on events at CSUN.
    There are total ${csunEventNumber} upcoming events at CSUN. Which one would you like to know about?`);
  },
}
```

# Sample JSON file for intents

```
{
  "languageModel": {
    "invocationName": "c sun calendar",
    "intents": [
      {
        "name": "AMAZON.CancelIntent",
        "slots": [],
        "samples": []
      },
      {
        "name": "AMAZON.HelpIntent",
        "slots": [],
        "samples": []
      },
      {
        "name": "AMAZON.StopIntent",
        "slots": [],
        "samples": []
      },
      {
        "name": "OnDateCapture",
        "slots": [
          {
            "name": "OnDate",
            "type": "AMAZON.DATE"
          }
        ],
        "samples": [
          "Tell me about events on {OnDate} ",
          "one on {OnDate}",
          "Tell me about events in {OnDate}"
        ]
      },
      {
        "name": "OnIndexCapture",
        "slots": [
          {
            "name": "OnIndex",
            "type": "AMAZON.NUMBER"
          }
        ],
        "samples": [
          "tell me about event number {OnIndex}",
          "number {OnIndex}"
        ]
      }
    ]
  }
}
```

# Testing

# 1. Endpoint Testing

- AWS Lambda:
  - a. Create a sample input JSON
  - b. Configure test cases with samples
  - c. Use the Test tool of AWS Lambda in AWS console







Services ▾

Resource Groups ▾



sachin ▾

N. Virginia ▾

Support ▾

Lambda > Functions > fetchCSUNCalendar

ARN - arn:aws:lambda:us-east-1:061221696465:function:fetchCSUNCalendar

## fetchCSUNCalendar

Qualifiers ▾

Actions ▾

as ▾

Test

Save



Execution result: succeeded ([logs](#))

► Details

Saved Test Events

as

Configure test events



Configuration

Monitoring

### ▼ Designer

#### Add triggers

Click on a trigger from the list below to add it to your function.

API Gateway

AWS IoT

Alexa Skills Kit

Alexa Smart Home

CloudFront



fetchCSUNCalendar



Alexa Skills Kit



Add triggers from the list on the left



Amazon CloudWatch Logs

Resources the function's role has access to will be shown here

## 2. Alexa skill testing

- Web console
  - Alexa Simulator
  - Manual JSON
  - Voice & tone
- Alexa device
  - Manual Testing



☒ Test is enabled for this skill☒ Skill I/O☒ Echo Show Display☐ Device Log

Alexa Simulator Manual JSON Voice &amp; Tone

English (US)

Type or click and hold the mic

open c sun calendar

Welcome to CSUN Calendar! The skill that gives you all the information on events at CSUN. There are total 15 upcoming events at CSUN. Which one would you like to know about?

tell me about events on friday

There is 1 event on 3-16. Would you like to know more about this event?

There is 1 event on 3-16. Would you like to know more about this event?

## Skill I/O

## JSON Input

```
1 {
2   "version": "1.0",
3   "session": {
4     "new": false,
5     "sessionId": "amzn1.echo-api.session.8896ce8b-cbc6-4460-b67a-136a89ff26e1",
6     "application": {
7       "applicationId": "amzn1.ask.skill.1.4a66daa2-d086-4476-85c5-f74fe4740af5"
8     },
9     "user": {
10      "userId": "amzn1.ask.account.AEZMHGC2HRI2URPWSNZSHZQIEFGTMOIXCTDVQ3M6X3U4AJTDPMLGUL"
11    }
12  },
13  "context": {
14    "AudioPlayer": {
15      "playerActivity": "IDLE"
16    },
17    "Display": {
18      "token": ""
19    },
20    "System": {
21      "application": {
22        "applicationId": "amzn1.ask.skill.1.4a66daa2-d086-4476-85c5-f74fe4740af5"
23      },
24      "user": {
25        "userId": "amzn1.ask.account.AEZMHGC2HRI2URPWSNZSHZQIEFGTMOIXCTDVQ3M6X3U4AJTDPMLGUL"
26      },
27      "device": {
28        "deviceId": "amzn1.ask.device.AGJ4Q4J7KCHDNVE2YDZKWNBGVYTDAGMK7DD6QPSANXF14T6"
29      },
30      "supportedInterfaces": {
31        "AudioPlayer": {
32          "templateVersion": "1.0",
33          "markupVersion": "1.0"
34        }
35      }
36    }
37  }
38 }
```

## JSON Output

```
1 {
2   "body": {
3     "version": "1.0",
4     "response": {
5       "outputSpeech": {
6         "type": "SSML",
7         "ssml": "<speak> There is 1 event on <say-as interpret-as='date' format='md'>"
8       },
9       "shouldEndSession": false
10    },
11    "sessionAttributes": {
12      "endDate": "<say-as interpret-as='date' format='md'>3-16</say-as>",
13      "eventIndex": "single",
14      "startDate": "<say-as interpret-as='date' format='md'>3-16</say-as>"
15    },
16    "userAgent": "ask-nodejs/1.0.25 Node/v6.10.3"
17  }
18 }
```

Echo Show Display



# Demo