

# Uvent

Proposal  
CMSC389L

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# Overview

Uvent will be an Alexa Skill and webapp which tailors events happening at UMD based on your interests.

When someone asks Alexa for event suggestions, it will list out the events occurring on campus. It then asks the user which event sounds interesting, allowing the Skill to learn the user's preferences over time.

As the user uses the Skill more, they will receive more events that are filtered for their preferences.

# Usage Example

*“Alexa, ask Uvent what events are happening this weekend”*

*“There are 10 events that I could find. Some interesting ones are Technica Hackathon, College Park Blues Festival, Left Bank Quartet: 6x3. Which one sounds interesting to you?”*

*“The Technica Hackathon sounds interesting! Can you tell me more about it?”*

*“Sure! Technica is the University of Maryland’s all-women hackathon...”*

# Features

Publicly exposed website and API for users to upload events

Alexa Skill as primary user interface - ability to support personalization per user

Lambda web scraping to find events scheduled - to occur every morning

RDS database to store user history and events

# AWS Services

API Gateway: exposing a public API to upload events

RDS: store user history and event data

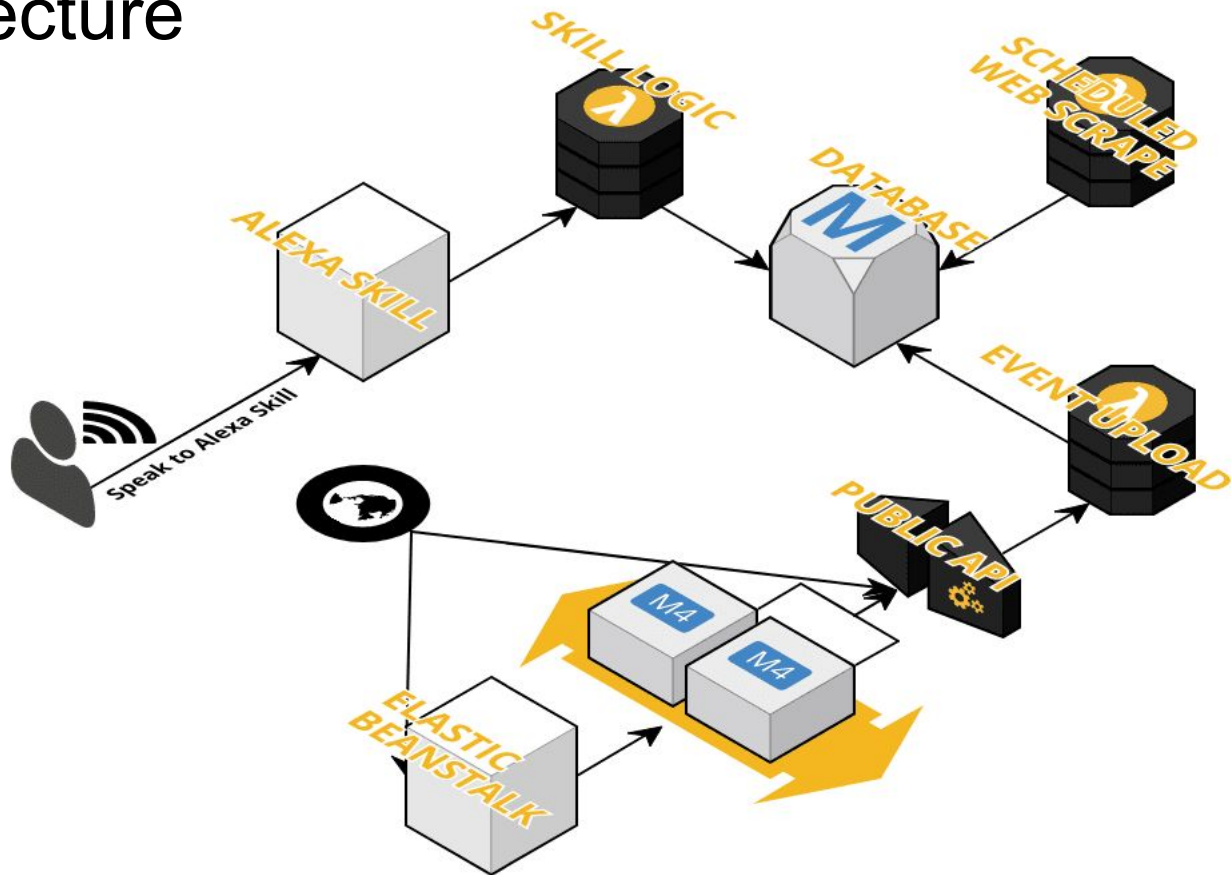
Alexa Skill Kit

AWS Lambda: Alexa Skill logic and to schedule daily web scraping

Elastic Beanstalk: hosting the webapp

EC2: run NLP data processing code (keyword extraction from descriptions or title)

# Architecture



# Scalability

Alexa Skill, API Gateway, RDS Aurora - scales on their own

Webapp - scales on its own (Elastic Beanstalk scales on its own)

Web scraping (Lambda) - never increases in terms of load so no need to load balance

# Hardware

Amazon Alexa (Echo Dot) - Tim and Tal both own one!





# Datasets

<http://calendar.umd.edu/>

<http://theclarice.umd.edu/calendar/list>

# Reference

# Database Schema

## Events

```
{  
  uid:integer,  
  name:string,  
  startDate:Date,  
  endDate:Date,  
  description:string,  
  categories:[string],  
  creationDate:Date  
}
```

## User

```
{  
  alexId,  
  eventHistory:[Event uid],  
  categoryWeights:{  
    category:weight  
  }  
}
```

# Alexa Speech

*“Alexa, ask Uvent what events are happening this weekend.”*

*“There are [int] events that I could find. Some interesting ones are [list three unique named events]. Which one sounds interesting to you?”*

*“[Event name] sounds interesting! Can you tell me more about it?”*

*“Sure! [Event description]”*

*“When is [event name]?”*

*“[Event name] is happening in [int] days from today in the [morning, afternoon, evening]!”*