Deb Banerji

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EDUCATION

Georgia Institute of Technology, Atlanta, GA **August 2015 - Present**

- Bachelor of Science in Computer Science - GPA: 4.00/4.00 Expected Graduation: : December 2018

SKILLS

Languages: C, C++, C#, Java, Python, Assembly Language, HTML 5, CSS, JavaScript, SQL
OS: Linux, Windows, Mac OS X
Technology: Android Development, Git, Arduino, Raspberry Pi, Unity, Bash Scripting, Beautiful Soup, Flask, Node.js, Express, MongoDB, Firebase, Angular, Bootstrap

EXPERIENCE

Teaching Assistant - *Georgia Institute of Technology*

- **Data Structures and Algorithms** **August 2016 – Present**
  - Holds office hours for class of over 400 students
  - Grades exams, assignments for over 50 students
  - Designs recitation guides, leads weekly 90 minute recitations

Software Engineer - *Yobi Technologies* **March – August 2015, June – August 2016**

- **Extreme weather prediction tool** - for use by central government in northeast India to issue flood warnings to residents - used in 4 states with combined populations of over 20 million
  - Implemented tool to map predictions from global climate models to flood prone locations and send SMS alerts to residents on a per location basis - *Flask, JavaScript, Python*
  - Wrote scripts to periodically update weather data in the database and compare actual data from weather stations to predictions in order to analyze forecast success rates - *Python*
  - Built Android application with GPS integration to streamline installation of weather stations by generating weather station configuration and location data and sending it to a server - *Java*
- **Quadcopter for surveying agricultural land** - for use by the India office of Columbia University Water Center - currently in use in Haryana, India
  - Built Android application to control quadcopter through either direct signals or GPS coordinates - *Java*
  - Wrote controller software for quadcopter to follow GPS coordinates, log flight data - *C++, Arduino*
  - Worked with team of 6 on frame to reduce cost of hardware by 30%

Undergraduate Researcher - *Georgia Institute of Technology* **January – May 2016**

- **Simulator to calculate power consumption of mobile device RAM**
  - Developed simulator to test memory management algorithm; implemented functionality for division of primary memory into sections, as algorithm was dependent on multiple sections of memory - *Python*

PROJECTS

'WingBuddy' - Home surveillance, automation system - Winner, HackEmory 2016

- Programmed Arduino to interpret sensor data, log room status to server and communicate with Android application over network - *C++*
- Programmed Raspberry Pi to automatically play music on speaker system based on sensor data - *Python*
- Built Android application to view live feed from sensors, connect with other users in network - *Java*

'Teeny Chat' - Social network with profanity tracker - Winner, HackGTeeny 2015

- Created routes on server to handle user requests, analyze comments for profanity - *JavaScript, Node.js*
- Designed front-end user interface with chat functionality, Facebook login integration - *JavaScript*

'Syncloud' - Synchronized audio streaming application - Runner-Up, Georgia Tech Appathon 2015

- Implemented RESTful API and Android application for streaming synchronized audio to multiple users, handling user requests to add tracks to queue - *Java, Node.js, SoundCloud API*

LEADERSHIP AND INVOLVEMENT

Organizer, Competitor - *World Cube Association* **February 2014 - Present**

- Nationally ranked Rubik's Cube speed solver
- World Cube Association competition organizer - organized multiple competitions with over 100 competitors