Aditi Dam

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EDUCATION

Columbia University - Fu Foundation School of Engineering and Applied Science (September 2019 - December 2022) **New York, NY**

Bachelor of Science in Computer Science with minor in Entrepreneurship and Innovation

- **Relevant Courses:** Data Structures, Advanced Programming, Computer Vision, UI Design, Computational Linear Algebra, Fundamentals of Computer Systems, Hacking For Defense, Robotics Studio, Advanced Database Systems, Empirical Methods of Data Science, Software as a Service, Advanced Software Engineering, Digital Game Design
- **Awards:** Dean's List, Lauren P. Breakiron Scholarship '22-'23, First Place Winner Black Wings Hackathon '23**,** Lauren P. Breakiron Scholarship '21-'22, First Place Winner in DevFest'21 awarded by Columbia's Application Development Initiative, Best Hack for Social Good awarded by Columbia's Application Development Initiative at DevFest '20

SKILLS

Python, Java, React Native, Swift, C, Javascript, Ruby, SQL, HTML/CSS, Web development, Figma, Git, Firebase, Flask, Unity, Expo

EXPERIENCE

Work Experience

Teacher Assistant for UI Design Class (Spring 2022)

- Graded assignments, debugged students' code, and helped them conceptualize their websites better. Held office hours and interacted with students to review concepts such as Bootstrap, Flask, database interactions, CSS, HTML, Javascript, and design principles.

World Wide Technology Inc. Summer Internship (Summer 2021)

- Assisted the Global Accounts team from a technical perspective by utilizing Python to automate their program management tools, redesigning their website, and creating weekly status reports for clients.

Columbia Computational Graphics Research Internship (Spring 2020)

- Developed an augmented reality program that would allow patients suffering from Parkinson's Disease to walk easily by placing virtual objects within the patient's visual field. Used Unity, C#, and Swift ARkit.

Hackathon Experience

Black Wings Hackathon (2023)

- Won 1st place for the MyCarbon app that allows people to track their daily habits and gain carbon emission points that show the impact of their lifestyle. My contributions were working on creating the expo environment, doing user authentication utilizing Firebase, creating the screens with React Native, styling the screens, creating the carbon point system, and creating the graph using the chartiful library. Technologies used were React Native, Expo, Figma, Firebase, and Github.

DevFest Hackathon Hosted by Columbia's Application Development Initiative (2021)

- Won 1st place for designing a program that notified people if they were eligible for the Covid-19 vaccine. Our team generated Robocalls by writing a Python script that scraped data from websites with current vaccination requirements and created an automated message. A website using Firebase was created where volunteers' responses were loaded into a MySQL database.

DevFest Hackathon Hosted by Columbia's Application Development Initiative (2020)

- Won "Best Hack for Social Good". Designed an app called Pantry Dial that matched donators and people who need help finding their next meal. Our team created the front-end by using React Native while the back-end was created using Firebase.

Leadership Experience

Robogals, Outreach Coordinator (2020 - current)

- Robogals aims to embolden girls and minorities to join the next generation of engineers. As Outreach Coordinator, I interacted with schools and volunteers for workshops.

Columbia Robotics Team, Sub-team lead (2019-2020)

- In charge of determining which sensors are needed for the competition and measuring test readings from the sensors.

Freelance App Development

Cube Catcher! (2020) **,** **Color Clutch** (2020)

- Programmed both apps in Swift and used Firebase to implement advertisements. Available on the Apple App Store.

Projects

SaaS (2022) **-** Alma

- Used Ruby to create a SaaS app where students at college can get their tasks completed by other students. Achieved good test coverage in RSpec and did user stories that passed Cucumber with good coverage. Deployed to Heroku.

Advanced Software Engineering (2022) - Questionnaire API

- Used Java and the Spring Framework to create an API that is a questionnaire framework where our clients can create, update, and delete their own questions and users as well as rank their end-users. Utilized H2 database to store the question bank for each client. Implemented JUnit for unit testing and tested every API entry point.

Advanced Database Systems (2022) **-** Association Rules, Information Retrieval System

- Created an information retrieval system that utilized user relevance feedback to improve search results by Google. Used Rocchio's algorithm to determine the query term weights in the next query. Utilized Google's Custom Search API and Bag-of-words model.

Robotics Studio (2022) **-** Walking Robot

- Used Computer Aided Design to design a bipedal robot which was then 3D printed. Utilized a Raspberry Pi and Python libraries such as lewansoul_lx16a to control the motors to make the robot walk. Used key-framing for gait and motion optimization.