Siddharth Batra

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Education

- **University of Florida** — Florida, United States
  Master of Science - Computer Science GPA: 3.89/4.0 — *August 2021 - Present*
  Courses: *Advanced Data Structures, Human Computer Interaction, Software Engineering, Algorithms*
- **Jaypee Institute of Information Technology** — Noida, India
  Bachelor of Technology - Computer Science and Engineering GPA: 8.3/10.0 — *July 2017 - June 2021*
  Courses: *Operating Systems, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Machine Learning, Networking, Databases*
  University of Florida: *Spring 2021 Exchange Program Student. GPA: 3.83/4.0*

Skills Summary

- **Languages**: Python, C/C++, JavaScript/NodeJS, SQL, Bash, Java(Familiar), Matlab(Familiar)
- **Frameworks**: Flask, React, Angular, ExpressJS, ElectronJS, SciKit, Tensorflow, Keras, Pandas, OpenCV
- **Tools & Platforms**: GIT, GitHub, MySQL, Linux, Web, Arduino, Raspberry, LaTex
- **Soft Skills**: Leadership, Time Management, Problem Solving, Critical Thinking, Quick Learner

Experience

- **Oppia** — Remote
  Team Member & Co-lead Angular Migration Team (Open Source)(Part-Time) — *Oct 2020 - Oct 2021*
  - Created simplified approaches to migrate complex coding patterns from AngularJS to Angular
  - Successfully merged **PRs** that clears blockage for other teams.
  - Member of onboarding team, helped new comers to be a part of the community.
- **BITS Pilani** — Remote
  Research Internship — *Jun 2020 - August 2020*
  - **Project - A blockchain and deep neural networks-based secure framework for enhanced crop protection.**: Developed a blockchain based crowd-sourcing framework for farmers to share information about crop protection and different crop diseases. Developed machine learning model to identify crop diseases using an image.
  - **Article**: Published a research paper in Ad-Hoc Networks Journal.
  - **Impact**: The results achieved in the research showed promising results for the reward based system and ML model achieved an accuracy of **95%**.
- **CampK-12** — Gurgaon, India
  Software Engineer Internship — *Jun 2019 - August 2019*
  - **Project - Reward Based Learning Game for Students**: Developed a reward based game for K-12 students that teaches programming and math to the students. Developed an algorithm that generates random programming and math questions based on rules provided by the problem setter.
  - **Additional Duties**: Taught **50+** K-12 students **web development** and **python programming**.
  - **Impact**: **50+** students switched from mobile games to learning game in their free time.

Projects

- **Nudget (Chrome Extension, Web Development, User Research, User Experience)**: Conducted a research study and developed a nudging based chrome extension to demotivate user from spending on e-commerce websites needlessly. Received promising results with **90%+** subjects staying in their budget.
- **Diabetic Retinopathy Detection (Machine Learning, Computer Vision, Full-Stack Development)**: AI model and mobile application to efficiently detect diabetic retinopathy using retinal images. **Tech: React Native, Python.**
- **Epilepsy Detection using EEG Signals (Machine Learning, Mobile Application Development)**: Developed mobile application to detect epilepsy in real-time and send push notifications to emergency contact specified by the user. **Tech: React, Python**
- **JIIT Social Backend: JIIT Companion Social Media (Web Development, Machine Learning)**: Developed the backend of JIIT Social - the social media application for JIIT student. Used by **1000+** students in campus. **Tech: NodeJS, MongoDB**
- **Chrome Extension for Dyslexic People(Web Development, Chrome Extension)**: Developed an accessibility tool for dsylexic people on internet for changing

Publications

- **Research Paper (Machine Learning, Blockchain)**: Hassija, V., **Batra, S.**, Chamola, V., Anand, T., Goyal, P., Goyal, N., & Guizani, M. (2021). A blockchain and deep neural networks-based secure framework for enhanced crop protection. Ad Hoc Networks, 119, 102537.
- **Book Chapter: A Deep Neural Networks-Based Cost-Effective Framework for Diabetic Retinopathy Detection**: Data Science for Effective Healthcare Systems CRC Press, Taylor & Francis Group, 9781032105680 (p-ISBN), 9781003215981 (e-ISBN)

Leadership Experience

- **Team Lead at Open Source Developers Community** — Noida, India
  Conducted online and offline technical & soft-skills training impacting over 500 students. — *July 2019 - July 2020*