

# Samriddha Basu

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GitHub: <https://github.com/TheDorkKnightRises>

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## TECHNICAL SKILLS

- Programming & Debugging (Python, Java, etc.)
- Data Processing (Spark, Hadoop, numpy, pandas)
- Machine Learning (Spark ML, scikit-learn)
- Version Control (Git)
- Web Development (HTML/CSS, JavaScript)
- App Development (Android)
- Database Systems, ETL (RDBMS/SQL, NoSQL)
- LLMs (OpenAI, HuggingFace, LangChain)

## EDUCATION

### **Master of Computing (Computer Science)**

School of Computing, National University of Singapore (NUS)

Aug 2022 — Jan 2024

GPA: 4.65 / 5 (Dean's List AY23/24 Sem 1)

### **Bachelor of Engineering (Computer Engineering)**

Sardar Patel Institute of Technology, University of Mumbai

Aug 2015 — May 2019

GPA: 8.86 / 10

## CERTIFICATION

### **Mobile Web Specialist**

Google

Aug 2019

### **Front-End Web Developer Nanodegree by AT&T, Google, GitHub**

Udacity

Nov 2018

### **Android Developer Nanodegree by Google**

Udacity

Jan 2017

## EXPERIENCE

### **Research Associate at Asian Institute of Digital Finance, NUS**

Mar 2024 — Present

- Research and development to create a platform that allows users to upload documents and extract facts, insights and summaries from them via chatbot-like interface (LangChain LLM + RAG with QA capabilities).
- Previously worked on research and development to create an automated video editing pipeline, that uses state-of-the-art advancements in AI to prepare short form video content for multiple languages.

### **Graduate Research Assistant at NUS Systems & Networking Lab**

May 2023 — Dec 2023

- Research and development on a Flask (Python) based webapp which provides users with investment advice based on ChatGPT's analysis of stocks and their financial indicators
- Collaborated with a small team of developers across Singapore and China, with other members working on related modules such as news impact analysis on stock prices.

### **Software Developer & Data Engineer at Credit Suisse**

Jul 2021 — Jul 2022

- Used Palantir's Foundry platform for Cloud-based Big Data Analysis to work with high volume trade datasets and generate Market Risk-related insights and reports, as part of the Market Risk Technology team.
- Collaborated with colleagues spread across EMEA, APAC and the Americas via Agile Methodologies.
- I was the primary owner of a code repo/module which acted as the interface between the data pipeline and the visualization dashboards exposed to the business users and managed all deliverables for the repo.

### **Technology Analyst at Credit Suisse**

Jul 2019 — Jul 2021

- (July 2020 - July 2021) Worked on a Java/Spring Boot-based backend for a Market Risk dashboard application, as part of the Market Risk Technology team. One of my major contributions was to increase the scalability manifold, with a significant reduction in the time taken by the daily task of processing the trade datasets by ~50% (from ~20 hours to ~10 hours) while removing the 5-day limit on historical data.
- (July 2019 - July 2020) Worked on a C#/ .NET-based tool to manage trades in FX and Derivatives, as part of the Electronic Trade Flow Management team spread across Americas and APAC.

## PROJECTS

### **Mystic Brush VR**

Unity, XR, C# - <https://thedorkknighttrises.itch.io/mystic-brush-vr>

A VR game for the PICO 4 standalone headset. Use a magic paintbrush to bring your creations to reality. Well, virtual reality. Initially developed as a prototype for the Lv99 + PICO VR Bootcamp in June 2023. Available on PICO Lab within the PICO Store, and on Itch.io.

### **Chehra – Face Recognition Attendance Management System**

Android, Machine Learning, Image Processing, Django, IoT

A proof-of-concept attendance management system that supports recognition of multiple faces from classroom pictures. I was the lead Android developer working on the Teacher and Student apps.

### **NotePal – Material Notepad**

Android, SQLite - <https://play.google.com/store/apps/details?id=thedorkknighttrises.notes>

A beautiful Material Design note-taking experience with innovative features such as pinned and scheduled notifications, OK Google voice actions, Drive backup, etc. [Available on the Google Play Store](#)

### **Multi-user Adaptive Launcher for Android**

Android, UX Design

A prototype launcher application for Android phones that enables multi-profile workflows on a single device, where each profile(e.g., Work, Travel) has its own list of applications and smart suggestions

## PUBLICATIONS

- R. Dmello, S. Yerremreddy, **S. Basu**, T. Bhitle, Y. Kokate and P. Gharpure, "**Automated Facial Recognition Attendance System Leveraging IoT Cameras**," *2019 9th International Conference on Cloud Computing, Data Science & Engineering (Confluence)*, Noida, India, 2019, pp. 556-561.
- S. Yerremreddy, **S. Basu**, A. Ojha and D. R. Kalbande, "**Machine Learning Approach for Diagnosis of Autism Spectrum Disorder**," *2019 2nd International Conference on Innovative Computing and Communication (ICICC)*, Ostrava, Czechia, 2019.
  - Received Best Paper award at the conference.
- **S. Basu**, R. Gite, P. Singh and N. Raul, "**Multi-user Adaptive Launcher for Android**," *2019 Twelfth International Conference on Contemporary Computing (IC3)*, Noida, India, 2019, pp. 1-6.

## POSITIONS OF RESPONSIBILITY

- Represented college as **Team Leader** in the Grand Finale of the inaugural **Smart India Hackathon 2017**
- **Teaching Assistant** for Professor Prachi Gharpure, Principal of Sardar Patel Institute of Technology, for the period from Jan 2017-May 2017
- As a **Microsoft Student Partner** (2017-18), I was responsible for sharing my knowledge and passion for tech with fellow students, building leadership and communication skills along with technical expertise
- As **Head of Technology** at **Entrepreneurship Cell**, Sardar Patel Institute of Technology for the period Jul 2017 – Jul 2018, I was part of the core organizing committee for various events
- Worked as **Mentor** and one of the **Lead Developers** in creating the **TechForSocial platform** ([TechForSocial.com](http://TechForSocial.com)) for showcasing innovative ways to make use of technology for social causes under Dr. Dhananjay Kalbande, Dean of Industry Relations and Head of Computer Department at S.P.I.T.

## AWARDS & ACHIEVEMENTS

- Recipient of **National Talent Search Examination (NTSE) Scholarship** from the **Government of India**
- One of 1000 recipients of **full scholarship** from Google India and Tata Trusts for the Android Developer Nanodegree at Udacity
- One of 350 recipients of **full scholarship** from Google India for the Front-End Web Developer Nanodegree at Udacity
- **Second runners-up** at the **NBF Tech Challenge 2018** organized by NMIMS and Royal Academy of Engg. UK