

Supratim Halдар

Bangalore, India

Phone: +91 8884688864

Email: supratimh@gmail.com

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

Website: <https://supratimh.github.io>

Kaggle: <https://www.kaggle.com/supratimhaldar>

- Working as **Solution Architect** for **Oracle**, building products with **advanced predictive capabilities**.
- Self-driven, **quick learner and passionate** about data with strong business acumen and problem-solving capabilities.
- Sound knowledge of **Statistics, Linear Algebra, Calculus** and **Machine Learning Algorithms**.
- Ranked among **top 10%** answerers on Python in Stackoverflow, and **top 2%** overall in 2019.
- Looking forward to leveraging my functional and technical knowledge and experience in a role as **Data Scientist / Machine Learning Architect**.
- Insightful experience in **Telecommunications, online retail** and **any kind of Digital-Service-Provider** business domains.
- Experienced in working as part of both **Product Development/Engineering** and **Project Implementation/Consulting** teams across organizations.
- Exposure to building **large-scale applications intertwined with Predictive Analytics capabilities**, catering to both B2B and B2C markets.

KEY SKILLS/KNOWLEDGE

- **Programming:**
 - **Proficient:** Python (including Numpy, Scipy, Sklearn, Pandas, BeautifulSoup, Matplotlib, Seaborn, Plotly), C
 - **Intermediate:** Tensorflow and Keras
- Data Structures, Algorithms and Design Patterns
- **Database:** SQL, PL/SQL, NoSQL (MongoDB)
- **In-depth mathematical and hands-on understanding of M/L and D/L algorithms:**
 - Regression and Classification
 - CART and Decision Forests and other Ensemble Methods
 - K-Means Clustering, PCA, Anomaly Detection, Collaborative-Filtering and Content-Based Filtering Recommenders
 - Deep Neural Network, Convolution Neural Network
- Data Ingestion (including web scraping), Data Visualization, Exploratory Data Analysis, Feature Engineering, Predictive Modelling, Data Mining, Pipeline and Ceiling Analysis methods, ETL
- **REST Architecture and Principles, Microservices** architecture pattern
- **Methodology:** Waterfall, Agile and Scrum, Business Process Modelling
- **Tools:** Rational Rose, MS Project, MS Visio, Confluence, GIT, SVN, CVS, JIRA, Quality Center etc.
- **Architecture Concepts:** TOGAF, TMForum Framework, UML, ITIL
- **Basic:** Docker and Kubernetes

PERSONAL PROJECT PORTFOLIO

A snapshot of few projects is provided below. For complete details of all projects, please visit <http://supratimh.github.io>

- [A complete end-to-end project: Development of a classifier to predict result of ODI cricket matches, before the match begins.](#) All aspect of this project was planned and executed by me – from ideation,

planning, design, data acquisition, feature engineering, modelling, testing to continuous update of the model with regular incremental data of latest matches.

Training data was “scrapped” from internet and model was prepared after massive feature engineering. Prediction accuracy on matches of ICC World Cup 2019 has been approximately **85%** so far and has outperformed Google’s prediction accuracy.

- [Identify artist from painting](#) – a CNN model trained on few paintings of most influential artists to learn the painting styles. It can identify painter when shown a previously unseen painting with ~87% accuracy.
- [A web-application](#) running the painter identification DL model at backend, developed with Flask and deployed on Heroku.
- [Identifying outdoor scenery using convolution neural network](#) – as part of an online challenge, built a classifier which can predict presence of an outdoor scene (e.g. – mountains, glaciers etc.) with an accuracy of ~97% on train data and ~94% on test data
- [What’s happening on the roads of Bangalore?](#) - An analysis of accident data on Bangalore roads, collected by Intel CAS in BBMP buses
- [Neural Style Transfer](#) - Generating art with Deep Learning
- [Implementation of key M/L algorithms from scratch in Python](#)
- Developed datasets through web-scraping - [AllSides : Ratings of bias in electronic media](#) and [BikeWise.org : Bike related reported incidents](#)

PROFESSIONAL EXPERIENCE

ORACLE INDIA

Solution Architect of apps and analytics products (IC Role)

Bangalore, India

March 2009 – Present

Roles and Responsibilities:

- **2009 – 2012:** Worked as software development team member, working on telco rating and billing product.
- **2013 – 2016:** Worked as technical lead, was involved in high and low-level design and development for rating and billing modules to meet customer requirements.
- **2016 – present:** Worked as an architect, involved in building end-to-end solution architecture with multiple Oracle products and design and development to meet customer requirements.
- At present, working as Lead Architect of a **Hybrid Cloud Solution with Predictive Analytics Capability for Communication Industry** (CX on cloud, and order orchestration, service fulfillment, monetizing and analytical functionalities on premise).
 - Responsible for **designing end-to-end architecture, business process framework and design of M/L framework.**
 - Playing a mixed role of **Architect** and **Data Scientist**, in **strategizing the roadmap** of the solution suite and **designing and building solutions.**
 - Designed **Machine Learning Model** for following use cases:
 - **Cluster Analysis** to generate segmented profile of customers
 - **Classification** model to predict whether a customer might **churn**, with accuracy of ~80% on real-world data
 - Recommend next best offer to customers based in multiple attributes
- Involved in response to **RFI** and **RFP**, **preparation of estimation and proposal** and **preparation and execution of showcase demos** with Pre-Sales/Sales teams.
- Attend workshops with business teams of clients to understand their business needs, process and objectives.
- Proficient in translation of business requirements into functional and technical requirements, and

guidance to implementation team in design and development activities.

Tools and Technologies: C, Python, Oracle DB, SVN/Git

In depth technical knowledge and experience of following Oracle products:

- Oracle Revenue Management Suite: OBRM, ECE, PDC, OMC
- **Oracle BI Publisher Reports (BIP): Reports and Analytics functionality**
- **Oracle Communications Data Model: Standard-based normalized data model, with pre-built data mining capabilities using Oracle Advanced Analytics**
- **Oracle Data Integrator: ETL tool to build, manage and maintain data integration processes in business intelligence systems**
- Oracle Siebel CRM
- Oracle Cloud CX Suite (SaaS and PaaS)

Experienced in working with business and technical teams of many service providers, such as:

- **Europe:** Vodafone Malta and multiple Vodafone OpCos in Europe
- **Asia:** Dhiraagu Maldives, Atria India, Uninor India
- **North America:** Equifax in Atlanta, Verizon Telematics (HUM) in Atlanta, Charter Communications in St. Louis, Sirius XM Satellite Radio in New York City, Dell (Auto Renewal Service)

AMDOCS DEVELOPMENT LTD.
Senior Subject Matter Expert

Limassol, Cyprus
July 2005 - February 2009

- Worked as a Development Team Lead for both **Amdocs Engineering and Implementation Teams**
- Some of the key projects I was involved in: AT&T and Sprint, USA

Tools and Technologies: C, C++, Oracle DB, SVN, HP Quality Center

EDUCATION

- University of Kalyani, West Bengal, India - B.Tech. (IT), 2003
- **Machine Learning** by Stanford University (through Coursera)
- **Neural Networks and Deep Learning** by deeplearning.ai (through Coursera)

EXTRA-CURRICULAR ACTIVITIES/ADDITIONAL SKILLS/HOBBIES

- Photography (<https://500px.com/supxyz>)
- Sports: Cycling, Running, Badminton, Table-Tennis
- Reading fiction, non-fiction, biographies and autobiographies
- Blogging (<https://medium.com/@supratim.haldar>)