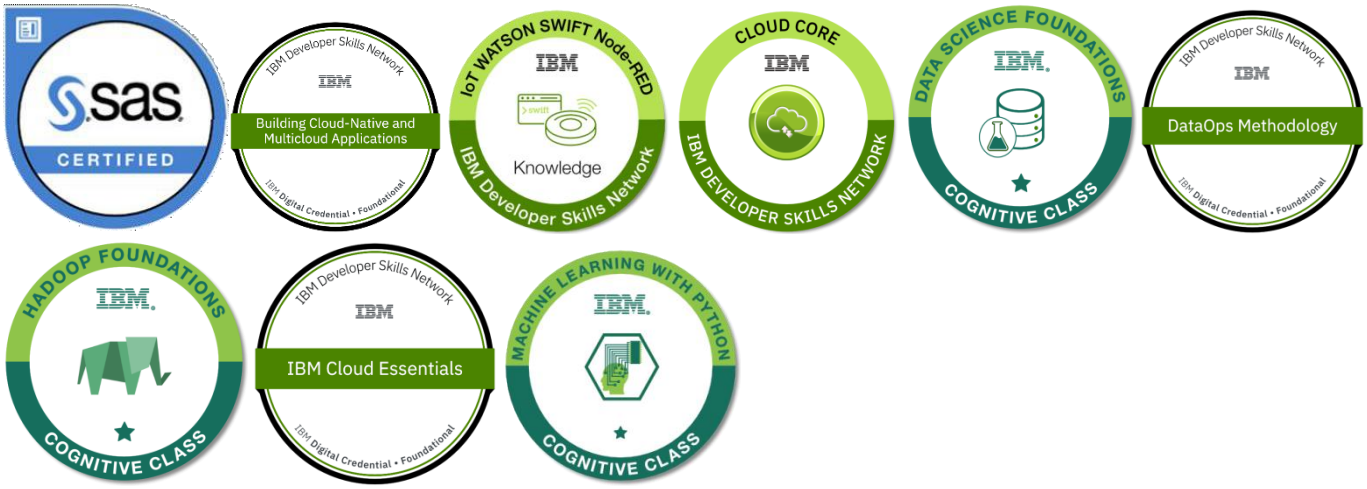

Sir. Gopalakrishnan Kumar

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+91-8928316507

Seeking a suitable opportunity in the field of Computational Biology/ Bioinformatics /Data Science in Life Science / Biotechnology / Pharmaceutical industry to create a path where synergy could be achieved between individual career aspirations and that of the organization.

ACADEMIC RECORD

M.Tech–Chemical Engineering (Computational Biology) IIT–Bombay	2011	8.59CPI
B.Tech-Oils, Surfactants & Oleochemicals UDCT-Mumbai [MUICT]	2008	First Class
12th–HSC Exam SIES College, Mumbai	2004	85.17%
10th–SSC Exam OLPS High School, Mumbai	2002	86.40%

TECHNICAL SKILLS

Operating System: Windows, Linux-Ubuntu

Programming Languages: PHP5.6, HTML, MATLAB, Java, Python, Perl, R, Linux Commands, C, C++, SCILAB, MySQL, Apache2

- Computational Biology
- MATLAB, SCILAB, FORTRAN
- CellSignaling Networks
- FASTQ Format
- Gene Expression
- Clinical Trials
- Programming using SAS 9.0.
- Bioinformatics Tools
- Applied Mathematics

TRAINING & CERTIFICATIONS

- Successfully completed INPLANT TRAINING Programme with Ricinash Oill Mills LTD., Taloga, Raigad, Maharashtra(May2007-June2007).

- Successfully completed INTERNSHIP-AT-INRIA Programme with INRIA, Paris Rocquencourt, France (May 2011-June2011).

- Successfully completed computer training programme on 'Object Oriented Programming-C++', NIIT, Mumbai (Feb2016-Apr2016).

- Successfully completed online training on 'Introduction to Bio-conductor: Annotation And Analysis of Genomes and Genomic Assays' from Harvard edX University, USA (Jul2016).

- Successfully completed an advanced training programme on 'How to Instruct Coaching lessons to Practical Physics, Chemistry, Mathematics' from Kotak Education Foundation, Deonar, Mumbai (August 2015- February 2017)

- Successfully completed an online training on 'Programming with Python for Data Sciences' from Microsoft Corporation, USA (Jan2017–Mar2017).

- Successfully completed online training programme on 'Advanced Bio Informatics Training – Covering Modules Introduction to Advanced Bioinformatics, Microarray Data Analysis, Next-Generation Sequencing Data Analysis' from ArrayGen Technologies, Pune (May2016-Jun2016).

- Successfully completed an online training on 'Software Construction in Java' from MIT edX, USA (September 2016- Dec 2016).

- Successfully completed an online training on 'Design in Healthcare using Patient Journey Mapping' from Delft University of Technology edX, USA (July2017- November2017).

- Successfully completed an online training on 'Case Studies in Functional Genomics' from Harvard edX, USA (January2018-March2018).

- Successfully completed a classroom training on 'Clinical SAS Programming' from CYTEL-CLIPLAB, USA in INDIA, Airoli, Navi-Mumbai [June2018-December2018]

  [1 Internship Gold Medal!][8.0/8.0 in Project work!]

- Successfully completed a classroom training on 'Project Trainee based on SAS Voucher' from CYTEL- CLIPLAB,USA in INDIA, Airoli, Navi-Mumbai [January2019- March2019]
  [1 Internship Gold Medal!][2.0/5.0 in MCQ Examination with SAS Certified Digital Logo!]

- Successfully completed an Online Training on "Python for Data Science" from UC California, San Diego edX, USA(September2019 November2019) with 100 Bookmarks earned (Bonus points) with100% successfully secured [First Class with Distinction].

- Successfully completed an Online Training on “Introduction to Data Science” from MICROSOFT edX, USA with 100% successfully secured [First Class with Distinction] [November 2019- December 2019].

- Successfully completed an Online Training on “Machine Dynamics with MATLAB” from RWTH edX, USA with100% successfully secured [First Class with Distinction] [December 2019] [America Initiative for the world].

- Successfully completed an Online Training on “Java Script Introduction” from W3C edX, USA with 100% successfully secured [First Class with Distinction] with 100 Bookmarks Earned (Bonus Points) [December 2019].

- Successfully completed an Online Training on “Programming Reactive Systems” from EPFL (Scala- Reactive) edX, USA and successfully secured 100% Bookmarks earned [First Class with Distinction] [December2019].

- Successfully completed an Online Training on “Python for Data Science and Machine Learning with MacOS” from Udemy, USA and successfully secured 100% score-points [Gold Medal] [January 2020].

- Successfully completed an Online Training on “Learn to Coding in Python3: Programming Basics to Advanced” from Udemy, USA and successfully secured 100% score-points [Gold Medal] [January 2020].

- Successfully completed an Online Training on “Python for Finance: Investment Fundamentals and Data Science” from Udemy, USA and successfully secured 100% score-points [Gold Medal] [January 2020].

- Successfully completed an Online Training on “Guide to AI and ML Developer Tools” from Udemy, USA and successfully secured 100% score-points [Gold Medal] [January 2020].

- Successfully completed an Online Training on “Life Science and Health Care Analytics” from 360DigiTMG, USA and successfully secured 100% score-points [Gold Medal] [June 2020].

- Successfully completed an Online Training on “Life Science and Health Care Analytics” from 360DigiTMG, USA and successfully secured 100% score-points [Gold Medal] [July 2020].

- Successfully completed an Online Training on “Identifying Risk Factors Influencing Diabetes Type” from 360DigiTMG, USA and successfully secured 100% score-points [Gold Medal] [August 2020- November 2020].

- Successfully completed an Online Training on “Natural Language Processing with Python” from Udemy, USA and successfully secured 100% score-points [Gold Medal] [August 2020- November 2020].

- Successfully completed an Online Training on “SQL and Relational Databases 101” from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [November 2020- December 2020].

- Successfully completed an Online Training on "Hadoop 101" from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [November 2020- December 2020].

- Successfully completed an Online Training on "Machine Learning with Python" from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [November 2020- December 2020].

- Successfully completed an Online Training on "Build an IoTBlockchain Network for a Supply Chain" from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [November 2020- December 2020].

- Successfully completed an Online Training on "SQL and Relational Databases" from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [November 2020- December 2020].

- Successfully completed an Online Training on "Introduction to Cloud" from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [November 2020- December 2020].

- Successfully completed an Online Training on "IBM Cloud Essentials- V3" from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [November 2020- December 2020].

- Successfully completed an Online Training on "Building Cloud Native and Multicloud Applications" from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [November 2020- December 2020].

- Successfully completed an Online Training on "Data Ops Methodology" from Cognitive Class.ai, USA and successfully secured 100% score with IBM Digital Badge [Gold Medal] [December 2020- January 2020].

- Successfully completed an Online Training on "Data Science Architect Master's Course" from Intellipaat, USA and successfully secured 100% score with Graduate Certification [94 Gold Medals] [January 2021- May 2021].

- Successfully completed an Online Training on "Microsot Excel Training" from Intellipaat, USA and successfully secured 100% score with Graduate Certification [20 Gold Medals] [May 2021].

WORK EXPERIENCE

1. **Research Associate- Hydrogreen Agribusiness, Mumbai**
   [Aug 2019- Jan 2020] [June 2020][July 2020]
   Project Name: Identifying Types of Leaf- Shade in Bio-Computational Analysis
   Project 1: 150 Gold Prizes won!

Project 2: 100 Gold Medals won!
Project 3: 50 Platinum Medals won!

Project Description: Agricultural Land Monitoring with Dry Leaf Detection using MATLAB with Arduino is a kit model develop using embedded systems. The main aim of this project is to analyze the growth of particular plant species and substantially detects the sickness if any occurred on plants.

In recent days, smarter techniques are deploy for improving the field of agriculture by providing healthy products.

Embedded system is operate with the assistance of MATLAB software which is popularly use in multiple fields. According to this concept, the leaf images are capture and fed into MATLAB software for identifying the dryness of leaf.

The hardware components are wired to form a kit and leaf images are collect from camera then they are submit into MATALB programs for the detection of dry leaves. Image processing techniques are apply to predict the leaf's current status.

Techniques Used:

Hardware Components Used for Designing Agricultural Land Monitoring with Dry Leaf Detection Using MATLAB with Arduino

- Land Moisture Sensor
- pH Sensor
- Humidity Sensor
- Temperature Sensor
- Arduino microcontroller
- Liquid Crystal Display
- Web Camera
- Xbee Module

Tools used: MATLAB, SCILAB, Python
Libraries Used: MATLAB Imaging, Numpy, Scikit-learn, pandas, matplotlib, keras, tensor flow
Business benefits: Embedded-System Titles→

- Designing an innovative architecture also using sensor devices for implementing a tele-health system
- Power generation system also by guiding the direction of solar panels
- A novel autonomous system develop in airports using the Global System also for Mobile communication technology
- Fabricating sensors in embedded systems for designing a structural health monitoring system
- A sleep detection systems that alerts if the amount of sleep is very low is identify also using brainwaves
- Designing an autonomous packing system also for mitigating the human efforts in courier services

- Implementation of multiple robot tracking system also to identify the exact location of the robot
- Innovative rescue system also for mine workers those have got struggled in underground environment
- Using 8051 microcontroller also for detecting distance of the arriving object towards the target
- A microcontroller based automatic water level alarming system also to minimize the wastage of water at home
- Development of a Boolean algebra calculator that is enable also to simplify Boolean expressions
- Development of a bank locker security system also using RFID technology with GSM technology
- Measurement of power from energy meter that is also wirelessly control using bluetooth technology
- An advance and intelligent four wheeler vehicle parking system also with low maintenance cost
- A novel dual mode operate robot that is controlled also using radio frequency based devices and detects obstacles
- 8051 microcontroller is involve also for designing a density based signal varying system
- Monitoring and alerting system that identifies the amount of pollution estimate also from the travelling vehicles
- A DC motor speed control system that is also develop using microcontroller

Roles and responsibilities: Lead Role in the preparation of as follows-

i. Project charter
ii. Code for graphs for good leaf, bad leaf, leaf blight and many more
iii. Code for all steps of variable description, exploratory data analysis, data processing and pre-processing, feature selection, model building, and, evaluation of models using python
iv. Predictive analysis
v. Descriptive analysis
vi. Model building
vii. Report writing, code documentation

2. **Software Engineer- SMAC Consultancy, Mumbai [Feb 2020- April 2020][June 2020][July 2020]**
   Project Name: Data Analytics, Federal Tax Returns
   Project 1: 150 Gold Prizes won!
   Project 2: 100 Gold Medals won!
   Project 3: 50 Platinum Medals won!

Project Description:

Techniques Used:
We'll continue to use data to drive decisions and make the most effective use of our resources. Advancements across the full data lifecycle—from collection to storage to access to analysis—

will allow us to better deploy data and implement insights. Improving data and analytics provides a repeatable process for selecting and assigning work.

As we strive to operate more efficiently, provide superior service to taxpayers and their representatives and ensure successful implementation of changes in tax laws, we're embracing and integrating data into our culture. Using analytics, we can continuously improve all facets of our operations — taxpayer service, enforcement efforts and a range of internal operations— maximizing our learning from tests and data. We're committed to using this research to guide our organizational priorities.

Advancements in how data is collected, stored, accessed and analyzed will allow us to deploy data better. We'll standardize our data processes and protocols and encourage collaboration among all IRS business units. Increased interoperability of data systems and sources will enhance the secure and seamless flow of data to enable greater authorized access to information. We'll invest in training to develop more advanced analytics skillsets across the IRS, and use data to improve our business processes.

Tools used: Python and R
Libraries Used: Numpy, Scikit-learn, pandas, matplotlib, keras, tensor flow
Business benefits:
Several are business benefits.

Roles and responsibilities: Lead Role in the preparation of as follows-

i. Project Charter
ii. Code for all steps of variable description, exploratory data analysis, Hypothesis Testing, using python.
iii. Predictive analysis
iv. Descriptive analysis
v. Report writing

3. **Data Analyst- Innodatatics, USA [June 2020- November 2020][June 2020] [July 2020]**
   Project Name: Identifying Risk factors influencing Diabetes Type
   Project 1: 150 Gold Prizes won!
   Project 2: 100 Gold Medals won!
   Project 3: 50 Platinum Medals won!

Project Description: The diagnostic department has recorded data on a few regular patients who visit hospital more often. The dataset consists of data recorded from 2018 to 2019. The dataset focuses on patients suffering from "Type 1 diabetes", "Type 2 diabetes", and a few other diseases. The aim is to predict and cluster the patients as per the types of diabetes they suffer and admit them in the proper ward. Building a machine learning model to group them accordingly can clear up the confusion that is being created in the hospital. The purpose of this project is to predict the ability of machine learning for classifying the types of Diabetes Mellitus (DM) using factors that determine diabetic types in susceptible individual, thus helps health care providers in different settings to find out the disease in their earliest phase which in turn enhance good prognosis.

Techniques Used:
Descriptive Analysis and Predictive Analysis, Classification Model, developing algorithms, namely LR, LDA, KNN, CART, NB, and SVM, to effective verify Model accuracy of the models. In

this project, Gradient Regression Boosting algorithm is the most appropriate algorithm for obtaining high accuracy percentage.
Tools used: Python and R
Libraries Used: Numpy, Scikit-learn, pandas, matplotlib, keras, tensor flow
Business benefits:
As the data has been classified into Type 1 and Type 2, DM along with corresponding risk factors and symptoms, the health care organization is able to provide necessary treatment to the patients in time thus assuring, quality healthcare services.

Roles and responsibilities: Lead Role in the preparation of as follows-

- Code for all steps of variable description, exploratory data analysis, data processing and pre-processing, feature selection, model building, and, evaluation of models using python.
- Predictive analysis
- Descriptive analysis
- Model building
- Report writing

4. **Data Scientist- Kaggle, USA [June 2020- November 2020][June 2020][July 2020]**
   Project Name: Bristol Myers Squibb, Molecular Transition, Can you translate chemical images to text.
   Project 1: 150 Gold Prizes won!
   Project 2: 100 Gold Medals won!
   Project 3: 50 Platinum Medals won!

Project Description: In a technology-forward world, sometimes the best and easiest tools are still pen and paper. Organic chemists frequently draw out molecular work with the Skeletal formula, a structural notation used for centuries. Recent publications are also annotated with machine-readable chemical descriptions (InChI), but there are decades of scanned documents that can't be automatically searched for specific chemical depictions. Automated recognition of optical chemical structures, with the help of machine learning, could speed up research and development efforts.

Unfortunately, most public data sets are too small to support modern machine learning models. Existing tools produce 90% accuracy but only under optimal conditions. Historical sources often have some level of image corruption, which reduces performance to near zero. In these cases, time-consuming, manual work is required to reliably convert scanned chemical structure images into a machine-readable format.

Bristol-Myers Squibb is a global biopharmaceutical company working to transform patients' lives through science. Their mission is to discover, develop, and deliver innovative medicines that help patients prevail over serious diseases.

In this competition, you'll interpret old chemical images. With access to a large set of synthetic image data generated by Bristol-Myers Squibb, you'll convert images back to the underlying chemical structure annotated as InChI text.

Tools to curate chemistry literature would be a significant benefit to researchers. If successful, you'll help chemists expand access to collective chemical research. In turn, this would speed up research and development efforts in many key fields by avoiding repetition of previously published chemistries and identifying novel trends via mining large data sets.

Techniques Used:
In this competition, you are provided with images of chemicals, with the objective of predicting the corresponding International Chemical Identifier (InChI) text string of the image. The images provided (both in the training data as well as the test data) may be rotated to different angles, be at various resolutions, and have different noise levels.

Tools used: Python and R

Libraries Used: Numpy, Scikit-learn, pandas, matplotlib, keras, tensor flow
Business benefits:
Submissions are evaluated on the mean Levenshtein distance between the InChI strings you submit and the ground truth InChI values.
Roles and responsibilities: Lead Role in the preparation of as follows-
Code for all steps of variable description, exploratory data analysis, data processing and pre-processing, feature selection, model building, and, evaluation of models using python. Predictive analysis, Descriptive analysis, Model building, Report writing

5. **Bioinformatics Scientist- Intellipaat, USA [Dec 2020- May 2021][June 2020] [July 2020]**
   Project Name: Graduate Master's Programme, Profitable Project Work
   Project 1: 150 Gold Prizes won!
   Project 2: 100 Gold Medals won!
   Project 3: 50 Platinum Medals won!

Project Description: CalTech, Pasadena Project- Providents!
Techniques Used:
Descriptive Analysis and Predictive Analysis, Classification Model, developing algorithms, namely LR, LDA, KNN, CART, NB, and SVM, to effective verify Model accuracy of the models. In this project, Gradient Regression Boosting algorithm is the most appropriate algorithm for obtaining high accuracy percentage. Hadoop, Hive, Spark, Impala, JavaScript!
Tools used: Python and R and all!
Libraries Used: Numpy, Scikit-learn, pandas, matplotlib, keras, tensor flow, sure many more
Business benefits:
In this there are several opportunities, benefits, and so many more
Roles and responsibilities: Lead Role in the preparation of as follows-

- Code for all steps of variable description, exploratory data analysis, data processing and pre-processing, feature selection, model building, and, evaluation of models using python.
- Predictive analysis
- Descriptive analysis
- Model building
- Report writing

6. **Data Analyst- Menorah Consultancy, Mumbai [May 2020- till today][June 2020] [July 2020]**
   Project Name: MS- Excel Training, pursuing…

Project Description: Ongoing…completed just the day!
Project 1: 150 Gold Prizes won!
Project 2: 100 Gold Medals won!
Project 3: 50 Platinum Medals won!

PROJECTS IN SAS PROGRAMMING

CRF Annotations, QC of SDTM Datasets Development, QC of LB Datasets Generation, QC of Shift Tables, ADSL Validation, ADVS Validation, Graph Development, QC of DM and AE Tables

ENTRANCE EXAMS AND COMPETITIONS

Secured GSK-Workday Gold Prize, Secured Roche-Workday Gold Prize, Secured Kaggle IC Gold Prize, Secured Illumina-Workday Gold Prize, Secured Illumina-Okta Gold Prize!!!

Cleared the BINC-2018 Exam, Bioinformatics National Certificate Exam with vaild score and Gold Prize

Cleared the CAT-2014 Exam with 63/300 Score and declared valid score

Cleared the TOEFL-iBT 2014 Exam with 54/120 TOEFL Test Score

Cleared the Revised GRE Exam 2011 with 305/340 GRE Test Score

Cleared the IIT-GATE 2009 and secured All India Rank 41[AIR- 41]

Cleared the IIT-AIEEE 2004 exam and secured All India Rank 83 [AIR-83]

Cleared MAH-EN-CET 2004 and secured 91.33% with State All India Rank 24 [SAIR-24]

Participated in the Regional Mathematical Olympiad: RMO 2002 and obtained a passing grade

Participated in the Regional Mathematical Olympiad: RMO 2001 and obtained a passing grade

PUBLICATIONS

- Dhananjaneyulu V, Sagar, P VN, Kumar G, Viswanathan GA (2012): Noise Propagation in Two- Step Series MAPK Cascade. PLoS ONE 7(5): e35958. doi:10.1371/journal.pone.0035958 [Cited 12 Times]

- Sir. Gopalakrishnan Kumar (2018): Noise Propagation during TRAIL Signaling, The University of California, edX, USA Abstract Board [Cited 2 Times]

- Dhananjaneyulu, Venkata, Sagar, P. Vidya Nanda; Kumar Gopalakrishnan; Viswanathan, Ganesh A: Noise Propagation in Two-Step Series MAPK Cascade- The Harvard University Abstract Board Services [SAO/NASA, ADS, General Science Abstract Service]

- Dhananjaneyulu Venkata, Sagar, P. Vidya Nanda; Kumar Gopalakrishnan; Viswanathan, Ganesh A: Intrinsic Noise Propagation in Two-Step Series Enzymatic Cascades- The Harvard University Abstract Board Services [SAO/NASA, ADS, General Science Abstract Service]

- Dhananjaneyulu, Venkata, Sagar, P. Vidya Nanda; Kumar Gopalakrishnan; Viswanathan, Ganesh A: Intrinsic Noise Propagation in Two-Step Series Enzymatic Cascades- Biophysical Journal, Volume 102, Issue 3, 49a

- V. Dhananjaneyulu, Sagar, P Vidya Nanda, G. Kumar Gopalakrishnan, A. Viswanathan, Indian Institute of Technology Bombay/ India: Intrinsic Noise Propagation in Two-Step

Series Enzymatic Cascades - 2nd Indo- German Workshop on "Advances in Reaction and Separation Processes", 20-22, February 2012, Bad Herrenalb, Germany

- Dhananjaneyulu V, Sagar P VN, Kumar G, Viswanathan GA (2010): Tuning noise propagation in a two-step series enzymatic cascade- Proceedings of the 9th European Conference in Computational Biology [ECCB 2010], Ghent, Belgium

ACHIEVEMENTS

- Received the 'IIT-Bombay Teaching Assistantship' [August 2014- July 2015]
- Received the 'IIT-Bombay Senior Research Fellowship' [August 2011-July 2014]
- Received the 'INRIA Scholarship' for conducting a part of M.Tech Thesis at INRIA: Paris-Rocquencourt, France (Part of MTech Thesis Evaluation), 2011
- Received 'IIT-GATE Scholarship' from the Government of India, and was awarded 'Teaching Assistantship' for the role of instructing 'Fluid Mechanics' and 'Chemical Thermodynamics' in the B.Tech Chemical Engineering Lab [CE-Lab], IIT-Bombay, 2009-2010
- Secured 10.00/10.00 CPI with an 'AA' Letter Grade in the M.Tech Project First Stage Evaluation
- Secured 96.67% in the B.Tech Project Evaluation and was awarded 1st Rank in Class out of 110 students

PERSONAL DETAILS

Name	: Sir. Gopalakrishnan Kumar
Date of Birth	: 29 Jul 1986
Father's Name	: Mr. Krishnan Kumar
Nationality	: GSK, Bengaluru [American], in-USA
Languages Known	: English, Hindi, Marathi, Tamil, Hebrew, French, Finnish
Sex	: Male
Preferred Location	: GSK, America [Dear Sir, I am applying for GSK, America letter; Seen in USA, anywhere in USA, -in USA!!! [iBanking Corporate Sectors]; GSK- Workday [maybe employment opportunities there!!!]
E mail ID/ Skype ID	: gopal.krishnan.18.1.1@gmail.com, gopal_krishnan_18@yahoo.com
Mobile no	: 91 8928316507, 91 9819043881

Thank you, sincerely yours, Dren-He, I hail you my National America!

Sir. Gopalakrishnan Kumar.