

# CV

## Prince Kumar Lat

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- Research Assistant (Molecular Biology & Biochemistry), Simon Fraser University, Burnaby, Canada [Research focussed in Biophysics & Bioinformatics]. [Sep'15-present]
- B.Tech (Biological Sciences & Bioengineering), Indian Institute of Technology Kanpur (IIT Kanpur), India. **GPA:- 9/10** [July'11-May'15]

### • **Programming Projects**

1. Designed and implemented an algorithm to analyze **naming patterns** in baby names
2. Implemented a **Python based web scrapping** tool
3. Built a **classifier** for classifying 'mtcars' dataset into **3 optimal** categories **using elbow curve method**
4. Implemented a **classifier (kNN based)** to predict customer churn in Telecom Company
5. **Bioinformatics:** Explored spatial segregation in the expression of olfactory receptors in a Model Organism using **Python**

### • **Technical Skills**

1. Proficient at programming in **Python, R, SQL, Tableau, C, C++** and **MATLAB**
2. Hands on experience in **Molecular Dynamics (MD)** Simulation using **Gromacs**
3. Comfortable with Image Quant software, Power point, MS-Excel, MS-Word, Gel Doc and CAD

### • **Leadership/Communication Skill**

1. Delivered Oral and Poster Presentation at International Scientific Conference (**Volcano Conference**, Pack Forest, WA, **USA** & **101<sup>st</sup> CSC conference**, Edmonton, **Canada**)
2. Mentor (Volunteer), **Let's Talk Science**, SFU Burnaby, Canada [Sep'18-present]
3. **Graduate Representative** of University Radiation Safety Committee (**URSC**), SFU, Burnaby, Canada [Sep'15- Sep'18]
4. Secretary of **BRaIN** (Biological Research and Innovation Network), IIT Kanpur, India [Aug'12–Aug'13]

### • **Achievement/Awards**

1. **Third position** (oral presentation) at the **101<sup>st</sup> CSC conference**, **Edmonton, Canada** [June 2018]
2. **Second position** (Poster presentation) in "MBB Colloquium" SFU, Burnaby [April 2016]
3. **ACADEMIC EXCELLENCE AWARD**, IIT Kanpur, India [2012-13 and 2013-14]
4. **General Proficiency Medal**, IIT Kanpur, India [2014]
5. Summer Research Internship Program at Max-Planck-Institute of Developmental Biology, Tubingen, **Germany** [June 2014]
6. **Merit Certificate** for scoring 100% marks in math's exam in higher secondary

### • **Journal (Peer-Reviewed) Publications**

1. **Lat PK**, Sen D (2018) **(C2G4)<sub>n</sub> repeat expansion sequences from the C9orf72 gene form an unusual DNA higher-order structure in the pH range of 5-6.** **PLoS ONE** 13(6): e0198418.
2. Arthur SE, Jiang A, Grande BM, Alcaide M, Cojocar R, Rushton CK, Mottok A, Hilton LK, **Lat PK et al.**, (2018) Genome-wide discovery of somatic regulatory variants in Diffuse Large B- cell Lymphoma. **Nature Communications** 9:4001, DOI: 10.1038/s41467-018-06354-3.
3. **Lat PK**, Sen, D. (2019) Covalent biotinylation of proximal DNA and proteins using the intrinsic peroxidase activity of DNA and RNA G-quadruplexes (close to submission).