Yash **Srivastav**

SENIOR UNDERGRADUATE · COMPUTER SCIENCE AND ENGINEERING

Indian Institute of Technology, Kanpur

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EDUCATIONAL QUALIFICATIONS

Year	Degree	Institution(Board)	CGPA/%
July'17 – Present	B.Tech, CSE	Indian Institute of Technology, Kanpur	9.4/10.0
2017	AISSCE – XII	Sunbeam English School Bhagwanpur (CBSE)	96.4%
2015	AISSE – X	Pristine Children's High School (CBSE)	10.0/10.0

SCHOLASTIC ACHIEVEMENTS

2015	**All India Academic Excellence Award**, awarded twice for outstanding academic performance in year '17-18 and '18-19	
2015	**All India Ram Prakash Chopra Memorial Scholarship**, awarded for exceptional academic record as a sophomore	
2015	**All India Rank 348**, JEE Mains	
2015	**All India Rank 715**, JEE Advanced	
arg4	**KVPY Scholarship Awardee**, amongst 50000 candidates	*arg3*
arg4	**Top 1%**, National Standard Examination in Physics, U.P.	*arg3*

WORK EXPERIENCE

E-Trading Team, JP Morgan & Chase   *Mumbai (Remote)*
QUANTITATIVE RESEARCH INTERN   *May'20 - Jul'20*
- Employed several Univariate **feature selection tests** for the analysis of existing baseline price prediction model
- Used feedforward and recurrent neural networks (**LSTM**), linear as well as non-linear **regression** to improve accuracy
- **Standardized** data for optimizing parameterization of individual features, yielding significant improvement
- Implemented several L1 as well as L2 features
- Improved model predictive power by **40%** for HK names

SKILLS

Proficient	C, Golang, Python, Javascript
Experienced	C++, Java, Scala, Android
Exposure	Haskell, Rust, Dart, Perl
Frameworks	Express.js with Node.js, Akka with Scala, JavaScript, TypeScript, Angular, Redux, Flutter
Utilities	Linux shell utilities, Git, Docker, Ansible, Postgres, MongoDB, OpenCV, LaTeX, Vim, Emacs, vagrant

RELEVANT COURSES

Introduction to Programming(A∗)	Discrete Mathematics	Computer Organization
Computer Architecture	Data Structures and Algorithms	Probability & Statistics(A∗)
Computing Laboratories - 1(A∗)	Computing Laboratories - 2(A∗)	Compiler Design
Functional Programming(A∗)	Computer Systems Security	Computer Networks(i)

A∗: Grade for exceptional performance   *i: In progress*

RESEARCH EXPERIENCE

Data Race Detection, Task-Parallel Programs   *IIT Kanpur*

SUPERVISOR: PROF. SWARNENDU BISWAS   *Jun'19 - Aug'20*

- Implemented a SOTA algorithm FastTrack for Task Parallel Programs, using **LLVM** pass for memory instrumentation
- Created an **optimized** version of FastTrack called FastTask by reducing space as well as time overhead of metadata operations, making it execute on all real-world benchmarks
- Designed a **novel** algorithm Tusker by integrating the space efficiency of a popular tree-based technique PTracer with the cheap data race checking of **vector-clock**-based FastTask
- Outperformed Ptracer by **1.8X** on a 32GB-Intel Core I9 system, is competitive on another 64GB-Intel Xeon system
- Paper based on the research work is under review

POSITIONS OF RESPONSIBILITY

Academic Mentor, *Counselling Service, IIT Kanpur, 2018-19*
Secretary, *Dramatics Club, IIT Kanpur, 2018-19*

MISCELLANEOUS

- Expoited and patched the zoobar server as part of Computer Systems Security Course
- Developed an android app which was a Websocket Client for a Websocket Server hosting a multiplayer game
- Contribute to Open Source projects like pdf.js and thelounge
- Won Fresher's Science Quiz in inter-hall annual competition
- Among the top 15 teams of India in CSAW 2016, CTF
- Mentored 6 students in building a chat application using nodejs and websockets as an Semester Project