Ashu Prakash

Former Business Analyst, Tredence Inc.
Worked with the World's largest retailer

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EDUCATION

- **Indian Institute of Technology, Kanpur** — Kanpur, India
  Bachelor of Science in Mathematics & Scientific Computing — Jul 2014 – Jun 2018

- **Shivam International School, Phulwaria** — Patna, India
  *All India Senior School Certificate Examination, CBSE; **90.6%*** — 2013

- **Gyan Niketan Senior Secondary School** — Patna, India
  *All India Secondary School Examination, CBSE; **CGPA: 10/10*** — 2011

ACADEMIC ACHIEVEMENTS

- **NRU-HSE**: MS accepted in *Supercomputer Modelling* at the National Research University, Moscow, Russia
- **GATE 2018**: Qualified Graduate Aptitude Test in Engineering (GATE) 2018 for Mathematics
- **SPO IITK**: Placed as a **Business Analyst** in *Tredence Analytics Inc.* in the first phase of campus placements
- **MM-ITNT 2017**: Acknowledged in a paper on "Portfolio & Risk Management" by M.E. Fatyanova & M.E Semenov
- **ECO311A**: Awarded the Best Group Project in the course "Development Economics" among 40+ group projects
- **TPU, Russia**: Received an *A* grade (Excellent) on ECTS scale for the research project in TPU, Tomsk, Russia
- **ECO101A**: Secured an *A** (Outstanding & Exceptional) grade in the course "Introduction to Economics" at IITK
- **JEE Advance 2014**: Secured place in the top 99.97 percentile among 150 thousand JEE Main qualified students
- **JEE Main 2014**: Secured place in top 0.2% students among 1.5 million JEE Main aspirants from India and abroad

WORK EXPERIENCE

- **Tredence Inc.** — Bengaluru, India / Bentonville, USA
  Business Analyst (Global Customer Insights & Analytics - Walmart Inc.) — July 2018 - April 2019

  - Worked with Customer Experience Track Team of Walmart US processing TBs of data daily
  - Modelled yearly Goals for 4000+ retail stores which will affect the compensation of 100000+ associates
  - Process and extract insights from Big-data on daily basis to be shared with the Sr Director of Fortune 1
  - Developed NPS driver model to find the reasons for the customer footfall in 4000+ stores in the USA
  - Helped Store, Division, & Market Managers on *day to day* basis for their customer experience issues
  - Frequently filter tampered data from potential negative customers by tracking their IPs as a part of QC
  - Developed quarterly and yearly bonuses of the associate's on the basis of their store's performance

  - Scored highest in the *Structured Query Language & Statistics* paper in the training programme
  - Taken session for employees about customer experience data tables of the World's largest retailer
  - Actively involved with the *Corporate Social Responsibility* team and teach in a school every week

- **School of Accelerated Learning** — Mumbai, India
  Product Management Intern (Supervisor: Raj Desai, Co-founder, SOAL) — May 2017 - July 2017

  - Received a **Pre Placement Offer** to join as a *Product Manager* in the company
  - Researched on various methodologies for modern web-dev frameworks like NodeJS, React & Electron
  - Deployed multiple web products in Heroku and AWS and maintained the backend DB in Postgresql

- **National Research Tomsk Polytechnic University** — Tomsk, Russia
  Research Fellow (Supervisor: Prof. Mikhail E. Semenov, TPU, Russia) — Nov 2016 - Dec 2016

  - Worked on moment matching scenario generation with application to financial portfolio optimization
  - Generated scenario trees for multistage problems using the mean CVaR model for portfolio optimization
  - Implemented the algorithm in R using real-time price data for 25 stocks from Moscow Stock Exchange

Salient Academic Projects

- **Wavelets and its Applications**   **IIT Kanpur**
  Guide: Prof. Pravir Dutt, Former Scientist, NASA Langley Research Center, US   *Jan 2018 - Apr 2018*
  - The aim of the project was to show the real life image compression application through wavelet analysis
  - Researched on the mathematical advancements on Wavelet Analysis and transformation of functions
  - Connected the wavelets with image compression for high definition images and *Google Maps* application

- **Analyzing Cryptocurrencies with Time Series**   **IIT Kanpur**
  Guide: Prof. Amit Mitra, Department of Mathematics & Statistics   *Aug 2017 - Nov 2017*
  - Estimated & Eliminated trend and seasonality in the historic Bitcoin vs USD exchange data of 7 years
  - We concluded that for the first 7 years, BTC followed *Auto Regressive Moving Average* ARMA(7,6) model
  - The code for all the financial models were written in MATLAB to analyze the cryptocurrency data

- **Mathematical Model of an Ideal Timetable**   **IIT Kanpur**
  Guide: Prof. Prawal Sinha, Department of Mathematics & Statistics   *Jan 2017 - Apr 2017*
  - Developed a computer programme to generate a unique timetable of each student at IIT Kanpur
  - The model is based upon the primary data collected from the daily lives of IIT Kanpur students
  - The programme is written in Python and is based on an open and static mathematical model

- **Heuristic Analysis of "Growth of PayTM"**   **IIT Kanpur**
  Guide: Prof. Debayan Pakrashi, Department of Economic Sciences   *Jan 2017 - Apr 2017*
  - Studied different factors and economic circumstances responsible for the exponential growth of PayTM
  - Conducted primary survey for data collection and studied the impact of PayTM on e-commerce in India
  - Published the project paper in the ***International Journal of Engineering Research & Technology***

Technical Skills

Languages: C++, R, Python, Julia   **Tools:** MATLAB, Excel, LaTeX, Git, Tableau, RShiny
Web Development: HTML, CSS, JS, Node.js   **Database:** Hadoop, MySQL, Teradata

Relevant Coursework

Time Series Analysis	Probability & Statistics	Mathematical Modelling	Business Analytics †
Data Structures & Algorithm	Bayesian Data Analysis	Several Variable Calculus	Differential Geometry
Fundamentals of Computing	Theory of Computation	Mathematical Logic	Abstract Algebra
Introduction to Economics	Development Economics	Linear Algebra	Real Analysis
Ordinary Differential Equations	Partial Differential Equations	Complex Analysis	Data Science Essentials
Mathematical Communication	Introduction to Mechanics	Numerical Analysis	Analytic Techniques in PDE

† Online Certification

Positions of Responsibility

- **Overall Coordinator**
  Stamatics - The Society of Mathematics & Statistics, IIT Kanpur   *Aug 2016 - Apr 2018*
  - Lead a team of 15 members working for the advancement of Mathematics in the campus
  - Started the newsletter *"Alpha"* in the Dept. of Maths & Stats in association with Stamatics
  - Organised multiple institute level tests and talks for the campus community, *esp.* maths students

Extra Curricular Activities

- Mentored twelve financially backward students academically under National Social Scheme
- Worked in *Siksha Sopan, an IITK NGO* to help poor children academically and financially
- Actively participated in the technical events of Robotics & Aeromodelling club in Takneek '14
- Secured first rank in state in Urdu Learning programme by Bihar Urdu Academy in 2006
- Volunteered in *Cyber Security Awareness Week '16*, New York University - Tandon School of Engineering