AAYUSH JAIN

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⬡ jnaayush   **Available: January - August 2019**   in aayush-jain-37319048

EDUCATION

NORTHEASTERN UNIVERSITY, BOSTON, MA   Expected Dec 2019
College of Computer and Information Science
Candidate for Master of Science in Computer Science   GPA 3.89
  - Course Work: Computer Systems, Algorithms, Object Oriented Design, Discrete and Data Structure
    Machine Learning (Ongoing), Information Retrieval (Ongoing)

INDIAN INSTITUTE OF TECHNOLOGY (IIT), KHARAGPUR, INDIA   Jul 2009 - Jun 2014
Bachelors (Honors) & Masters (Honors) of Science in Exploration Geophysics
  - Relevant Courses: Programming and Data Structure, Partial Differential Eqn, Transform Calculus
  - Recipient of I.N.S.P.I.R.E. scholarship from Dept. of Science & Technology, Government of India

ACADEMIC PROJECTS

Performance Analysis of Sorting Algorithms *(C, Python, libperf, matplotlib, numpy)*   Jul 2018 - Aug 2018
  - Developed a tool to analyze sorting algorithms on metrics such as cache misses, page faults etc.
  - Automated selection of sorts, generation of data and plotting of results through matplotlib
  - Utilized GCC compiler hooks to study 3 sorts and found quick sort to be 20% more efficient than merge sort

Animation generator based on MVC design pattern *(Java, Swing, Awt, Xml)*   March 2018 - Apr 2018
  - Pair-programmed to generate GUI based SVG animation viewer and its text transcript by processing input file
  - Followed MVC design pattern to store parsed data and generate different views based on user input

Data Analysis *(Java, Linear regression, K-means clustering)*   Jan 2018 - Feb 2018
  - Implemented linear regression for best fit line minimizing mean squared error cost function
  - Clustered points in 2-D plane implementing k-means clustering algorithm

Explode : Robotics Competition, Kshitij 2010 *(C, Embedded Systems, AVR, microcontroller)* Dec 2009 - Jan 2010
  - Wrote code & built circuits for autonomous robots to navigate grid, detect and avoid land mines
  - Finished 2nd in largest robotics competition in Eastern India along with 3 team members

TECHNICAL KNOWLEDGE

Languages: C, Java, Python, HTML, CSS
Tools: IntelliJ Idea, Xcode, Pycharm, VIM, Git, Android Studio

WORK EXPERIENCE

Teaching Assistant | Northeastern University, Boston, MA   Jan 2018 - Present
  - Courses: Discrete & Data Structure | Algorithms | Computer Systems | Object Oriented Design | Foundations of CS
  - Guiding 100+ students to help reinforce concepts, complete assignments and improve performance
  - Monitoring students' progress and assisting professor in grading weekly assignments, conducting labs & quizzes

Product Developer | SensoVision Systems, Bangalore, India   Aug 2016 - Aug 2017
  - Envisioned & developed an optical sorting machine using OpenCV to eliminate manual intervention in quality control
  - Extended open source softwares to add multiple custom features required for in-house products
  - Re-designed and created company website resulting in an increase in hit rate by 2x
  - Defined hardware specifications, negotiated with suppliers and procured camera & illumination systems

Teaching Associate | R.A.C.E., Bhopal, India   May 2015 - Jul 2016
  - Taught Mathematics & prepared practice material; received high remarks for creativity of classroom lessons

Geophysicist | Central Mine Planning and Design Institute, Nagpur, India   Aug 2014 - May 2015
  - Delineated coal deposits through field surveys, analysis & interpretation of well-logging and electrical profiling data
  - Saved ≈ ₹1M in combined drill bit cost and man hours by locating and avoiding subsurface volcanic rocks

LEADERSHIP EXPERIENCE │ EXTRACURRICULAR

  - Mentored and guided a group of students to make an autonomous robot and taught basics of micro-controllers
  - Led a team of 7 for organizing and executing basketball competition in annual sports fest of IIT Kharagpur
  - Interests : Tech-DIY ★ Basketball ★ Card games ★ Guitar ★ Traveling