



## Education

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- National Institute of Technology, Durgapur
  - M.Tech. in Operations Research, CGPA 7.95, (2016 - 2018)
  - Graduate Courses : Programming Language and Data Structure, Automata and Algorithms, Discrete Mathematics, Operations research, Probability and Statistics, Optimization Techniques, Numerical Methods
- National Institute of Technology, Durgapur
  - B.Tech. in Biotechnology with open electives from Computer Science, CGPA 7.0, (2007 - 2011)
  - Undergraduate Courses : Data Structures, Computer Networks, Operating Systems, Communication Network, Database Management Systems

## Employment(s)

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- Software Developer, VHR Solutions (Feb 2020 - Sep 2020)
  - Worked in payments team of Infosys's Finacle product . Finacle provides universal banking solution . As a team member I was involved in implementing the code for handling the Bank Identifier Code . Written a Java JDBC code for exporting table rows from Oracle database . The exported rows are in form of insert query and are suitable for Postgres database . Those insert query can then be executed in Postgres Database . Have written a small bash script for automating the execution of multiple sql files on remote postgres database .
- As a Teaching Assistant, taught following courses during M.Tech. at NIT Durgapur (July 2017 - May 2018)
  - Numerical Analysis Lab using C programming, May 2018 .
  - Operations Research Lab using Matlab, Dec 2017 .
- System Engineer, TCS(Tata Consultancy Services, Chennai) (July 2011 - July 2013)
  - Managed integration servers installed on Redhat systems using linux commands and script.
  - Created web services to migrate data from legacy system IBM DB2 database to latest oracle database using Oracle Middleware Technology . The data of DB2 was exposed in XML and the web services were consuming these data and inserting it into Oracle database .

## Projects

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- Created an AI to answer questions . Input was few wikipedia pages as text files . Used TF-IDF technique to give most relevant answer to the given user query . <https://github.com/eelectron/questions> . CS50's Introduction to Artificial Intelligence with Python, Oct 2020 .
- Created a [web application](#) for handling pizza restaurant's online orders , using Django web framework : <https://github.com/eelectron/pizza> , HarvardX: CS50's Web Programming with Python and JavaScript, Jan 2020  
Features supported :
  - User can register, login, add and save item to cart, get order confirmation email
- Created a chatting application named [Flack](#) , similar to Slack , using python, flask and socketIO . User can register, create new channel , delete their post, check others post in real time using socketIO . : <https://github.com/eelectron/flack> , HarvardX: CS50's Web Programming with Python and JavaScript, Jan 2020
- Created a book review website, [lookthebook](#) . Technology used are Html, Javascript, Python, Flask, Postgresql database : <https://github.com/eelectron/BookReview> , HarvardX: CS50's Web Programming with Python and JavaScript, Dec 2019  
Features supported :
  - User can register, login and logout, give comment, search book, view ratings of book
- M.Tech project: Recognition of printed Odia(A language spoken in India) character using neural network , June 2018.

- recognized 62 basic Odia characters (10 numerical, 12 vowels, 40 consonants) in a given image and convert them to computer editable text using deep neural network. Got an accuracy of 97.75
- Input layers = 784, hidden layers = 300, output layers = 62
- Technology used: Python, OpenCV
- Created web based game 2048 : <https://gitlab.com/psonlinux/2048-game-web>
- Created following command line games
  - 2048 in C++, <https://gitlab.com/psonlinux/2048>
  - "Game of Fifteen" in C, <https://gitlab.com/psonlinux/game-of-fifteen>
- Created GUI game
  - Breakout in C, <https://gitlab.com/psonlinux/breakout>

## Additional Courses

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- Deep Learning Specialization, Coursera, Jan 2019
  - Neural Networks and Deep Learning, Grade Achieved: 98.6%
  - Structuring Machine Learning Projects, Grade Achieved: 96.7%
  - Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization, Grade Achieved: 100.0%
  - Convolutional Neural Networks, Grade Achieved: 98.9%
- CS50's Introduction to Computer Science, HarvardX, July 2019
- [Computational Thinking using Python](#), MITx, Aug, 2018
- Machine Learning Stanford University, Coursera, November 2017, Grade Achieved: 97.6%
- Algorithms: Design and Analysis, Part 1, Coursera, Grade Achieved: 84.5%, September 2015

## Skills and Technologies

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- Web Framework : Django, Flask, JavaEE
- Algorithms , Data Structure, Object Oriented Design, Responsive Web Design
- Programming languages: C++, Python, Java , C , Matlab
- Frontend : Ajax, Javascript, Html, CSS
- Backend : Postgres, Oracle, Sqlite
- Tools and IDE : Vim, Git, GDB, Eclipse IDE, Visual Studio, OpenCV,  $\text{\LaTeX}$
- Operating system : Ubuntu, Mac, Windows

## Achievements

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- All India Rank 1593 among 1,08,495 in [GATE-2016](#) in Computer Science .
- Cummins Inc.'s appreciation certificate [certificate](#) .