Vatsal Kanakiya

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EDUCATION

K. J. Somaiya College of Engineering, University of Mumbai, India *2014 - 2018*
B.Tech. in Computer Engineering, CGPA - 6.69/10

PROFESSIONAL EXPERIENCE

Summer Technology Intern, Morgan Stanley *May 2017 - July 2017*
Prime Brokerage, Finance, and Funding Technology, Mumbai, India

- Brought drastic improvement in memory consumption of an internal financial data visualization and manipulation tool by designing and implementing an algorithm to store and retrieve data to and from a relational database in a paginated fashion.

Summer Research Fellow, LVPEI Center for Innovation *Jun 2015 - Jul 2015*
Mumbai, India

- Designed and implemented a unique data communication protocol that also checked for transmission errors and redundancy for the Pediatric Perimeter - a first of its kind device to measure the visual field of infants to detect defects and help provide early stage medical aid.
- Worked on calibration of device for accurate results through rigorous research methodology.

TECHNICAL SKILLS

- **Languages**: C, C++ (STL, boost), Java, Python, C#, Matlab
- **Web Development**: HTML, CSS, JavaScript, PHP, Django, Flask, Angular2, Celery
- **Database Technologies**: SQL, NoSQL (basic)
- **AI & Robotics Frameworks / Tools**: Tensorflow, Pytorch, scikit-learn, ROS

PROJECTS

RoboRehab - A Continuous Passive Motion Machine

- Device to rehabilitate patients of stroke, made in collaboration with the K. J. Somaiya College of Physiotherapy.
- Exercises arm in order to help patients regain control over them.
- Worked on the android app, the flask server and the embedded C code for the device.

VZ_Learn

- A library of Machine Learning and Data Pre-processing algorithms implemented from scratch in C++.
- Used boost uBLAS as linear algebra library.
- Implemented algorithms like feature normalization, feature discretization, gradient descent, decision tree, naive bayes, etc.

PUBLICATIONS

Automated Gait Generation for Simulated Bodies using Deep Reinforcement Learning, Ananthakrishnan, A., Kanakiya, V., Ved, D., Sharma, G.

- Won 2nd prize at state level Prakalpa paper presentation competition 2018 in AI / ML section
- Part of proceedings of 2nd IEEE International Conference on Inventive Communication and Computational Technologies, Coimbatore.

CERTIFICATIONS

- **Machine Learning**, Stanford University *(vazzup.me/ml-certificate)*
- **Neural Networks and Deep Learning**, deeplearning.ai *(vazzup.me/dl1-certificate)*
- **Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization**, deeplearning.ai *(vazzup.me/dl2-certificate)*
- **Structuring Machine Learning Projects**, deeplearning.ai *(vazzup.me/dl3-certificate)*

ACHIEVEMENTS AND EXTRA-CURRICULAR

- **Smart India Hackathon, Hardware Edition** - Finalist (Rank TBD) *2018*
- **ISTE Prakalpa Paper Presentation Competition** - Rank 2^{nd}/39 *2018*
- **ACM-ICPC Chennai Asia Onsite Regionals** - Rank 73^{rd}/867 *2016*
- **ACM-ICPC Amritapuri Asia Onsite Regionals** - Rank 219^{th}/1981 *2016*
- **KJSCE Hackathon** - 4^{th}/30 teams *2017*
- **DJSCE Code Uncode** - 3^{rd}/200 participants *2016*
- **Committee Head, Codechef Campus Chapter** - Most Active Student Chapter, India *2017*
- **Project Mentor, Engineering the Eye Hackathon** - Gaze Tracking for Pediatric Perimeter *2016*