

JERRIN BRIGHT

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PERSONAL PROFILE STATEMENT

I want to take up an exacting position in the industry, where I could work on R&D and traverse new paths in Intelligent Robotics. Bearing these long-term goals in mind, my immediate objective is to work on several prominent research activities that would boost my profile and my skills, whose importance in laying a strong foundation for a successful career in research is paramount.

CORE INTEREST

- Robotics
- Artificial Intelligence
- CAD & Simulations
- Autonomous System Development
- Front-End Website Developing
- Technical Management

QUALIFICATIONS

Vellore Institute of Technology, Chennai, India

June 2018-Present

Bachelors of Technology in Mechanical Engineering

Cumulative GPA: 8.26/10.0

Chettinad Vidyashram, Chennai, India

June 2003-May 2018

CBSE – Computer Science

10th CGPA 9.4/10.0, 12th 83.2%

PROFESSIONAL EXPERIENCE

Research Intern - Autonomous System Developer @ Aero2Astro

Oct 2020-Present

- Developing a firmware for navigation using ROS and SLAM concepts.
- Once implemented, will resolve GPS reception glitches observed in drones.

Operation Manager Intern @ Madras Scientific Research Foundation

Oct - Dec 2020

- Working on cutting edge researches based on Additive Manufacturing.
- Detecting of defects and Reinforcement for 3D printer models.
- Software/ Concepts like Rhinoceros, KMeans Clustering, GCN, visualization and manipulation of big datasets, OpenCV, TensorFlow were used.

Data Science Intern @ BrainMagic InfoTech Pvt, India

May – July 2020

- Automobile part recognition via transfer learning and data augmentation techniques.
- Deployed via AWS using Amazon Sagemaker and S3 Buckets.

Project Research Intern @ Yuan Ze University, Taiwan

April – June 2020

- Conditional Random Fields for Semantic Segmentations via masking and gaussian filters.
- Acoustic Event Detection for 3D localization modeled by Markov models.

ATOM Robotics @ VIT University, Chennai

Jan 2019-Present

- An official team at VIT University consisting of 55 passionate engineers
- A platform for young aspiring minds to prosper in Robotics, with 20+ awards till date.

ACCOLADES

Outstanding Research Paper Award – RIACT 2020 International Conference

Winner of CURRENTS'20, NIT Trichy - Autonomous Line Follower by ECE department

Winner of KURUKSHETRA'20, CEG Anna University – RoboZest, national level Techfest

Recognized Galactic Problem Solver - NASA International Space Challenge

First Runner-up- Chennai International Youth Fest - Youth Development Consortium

Fourth Runner-up of ATMOS'19 - BITS Pilani, Law follower, Tech-Management Fest

Winner of VASHISTH'19 - IIITDM Kanchipuram, National level Techfest.

AREA OF EXPERTISE

Designing Tools- Autodesk Fusion360, SolidWorks, Simulations, Proteus, Rhinoceros, Cura
Programming Tools- C, C++, Python, Embedded System, MATLAB, Shell, HTML_CSS+JS
Machine Learning Tools- OpenCV, TensorFlow, Matplotlib, NumPy, Keras, PyTorch, Scikit
Hardware- Arduino, Raspberry Pi, Drones, ESP, STM, IMU
Operating Systems- Windows, Linux, ROS

RESEARCH AND PUBLICATIONS

Jerrin Bright, R Suryaprakash, S Akash, A Giridharan (2020) Optimization of a quadcopter frame using generative design and comparison with DJI F450 drone frame.
RIACT International Conference *Oct 2020*

RESEARCH PROJECT

VESTIUM- SMART ROBOTIC CLOSET- STARTUP PROJECT *May 2020 - Present*

- Designed to maximize small spaces which will be poised to transform urban living.
- Used as an entertainment center, home office, bedroom, storage - all in one closet.
- At present in prototyping phase, with an optimism to make it a startup product.

ASCR- AUTONOMOUS STAIR CLIMBING ROBOT *April – June 2020*

- ASCR was intended to automatically deliver packages from one place to another.
- Linear actuators, gyroscope were used to uphold the position of the package.
- Path detection has been achieved using Computer Vision and ROS.

XRAY DETECTION *Sep – Dec 2020*

- Built a deep learning model, detecting 14 chest related diseases with dataset accrued from NIH.
- Was trained with the help of MobileNet pre-trained model and data augmentation.

AUTONOMOUS MOBILE ROBOT *Sep – Nov 2020*

- Custom built a UAV using Solidworks and created URDF files for it along with new worlds.
- Implemented 4 SLAM techniques including Gmapping, Hector, Karto and Frontier mapping.
- Used Monte Carlo localization & Kalman filters; path planning using Dijkstra planning algorithm.

MINI ROBOTS *Sep – Nov 2020*

- Law Following Robot, Obstacle Racer, Autonomous Self Driving Robot, Robo-Soccer, Maze Runner, Sumo Robot, Drag Racer, BattleBots, RC Nitro Cars, etc.

EXTRA-CURRICULAR

Machine Learning Contributor *Oct – Dec 2020*

- Contributing ML blogs via CodeSpeedy Tech to various blog-based companies.

RoboPrix 2020 *2020*

- Student Coordinator – National Level Robotics Competition.

Institute of Electrical and Electronics Engineer *April 2019 - Present*

- Active Member of Robotics and Automation Society.

National Service Scheme *May 2019 - Present*

- Active Member of Indian Government sponsored public service program.
- Part of several awareness programs – International Coastal Cleanup day, ICG Ship Visit.

DECLARATION

- I, Jerrin Bright, hereby declare that the above-mentioned information is true to my knowledge, as of December the 16th, 2020.
- References available on request.