Jerrin Bright [Mechanical Engineer]

Versatile Engineer with expertise and skills in Robotics, Data Science, CAD Designing & Simulations, Front-End Website developing and Optimization.

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EDUCATION

Under-Graduation - Vellore Institute of Technology [B. Tech]
2018 – Present CGPA: 8.26

School- Chettinad Vidyashram [CBSE]
CGPA: 8.26 10TH 9.4 CGPA; 12TH: 8.26

WORK EXPERIENCE

Research Intern - Autonomous System Developer
@ Aero2Astro Oct 2020-Present
Developing a firmware for navigation using ROS & SLAM concepts. Once implemented will resolve GPS reception glitches in UAVs.

Operation Manager Intern
@ Madras Scientific Research Foundation Oct-Dec 2020
Working on cutting-edge research in Additive Manufacturing. The concept is to detect defects & Reinforcing for 3D Printer models.

Data Science Intern
@ BrainMagic InfoTech Pvt, India May-June 2020
Developed an App for Automobile parts recognition, using AWS Machine learning via customized Models with high precision.

Project Research Intern
@ Yuan Ze University, Taiwan April – June 2020
Worked on Smart Surveillance System, using ConvCRFs for Semantic Segmentations & Acoustic Event detection.

Co-Founder and Team Lead, ATOM Robotics
@ VIT University, Chennai Jan 2019 – Present
A platform for young aspiring minds to prospering robotics. A team consisting of 50+ passionate engineers with more than 20 awards.

PROJECTS

"VESTIUM" - Designed & implemented a smart robotic furniture, which maximizes small spaces & is poised to transform urban living. At present in prototyping phase, with optimism to make it a startup product.

ASCR [Autonomous Stair Climbing Robot]- Intended to autonomously deliver a package from one location to another. Designed using Fusion360. Path planning (Navigation) has been achieved via CV & ROS.

X-Ray Detection- Built a deep learning model, detecting 14 different chest related diseases. Was trained with MobileNet pre-trained models & Data-Augmentation techniques resulting with an overall IOU of 75%.

Autonomous Mobile Robot- Custom built a differential-drive robot and created URDF files along with the world. Implemented SLAM techniques with Extended Kalman Filter and navigation via Adaptive Monte Carlo Localization, path planning via Theta* any-angle algorithm.

SKILLS

Solidworks | Fusion 360 | C | C++ | Python | Proteus | Embedded C | Matlab | OpenCv | TensorFlow | Matplotlib | FLASK+HTML+CSS+JS | IOT | ROS | Arduino | Raspberry Pi | ESP32 | IMU | Rhinoceros | Drones | STM | SLAM

RESEARCH AND PUBLICATION

BEST PAPER AWARD- RIACT 2020 International Conference Robotics, Intelligent Automation and Control Technologies
TOPIC: Optimization of a quadcopter frame using generative design and comparison with DJI D450 drone frame
AUTHORS: Jerrin Bright, Suryaprakash R, Akash S, A Giridharan **ABSTRACT:** A research accentuating on drone frame designing via various stratagems including Generative designing, simulations & associating results attained from the aforementioned outcomes with a DJI F450 frame.

ACHIEVEMENTS

GALACTIC PROBLEM-SOLVER by NASA INTERNATIONAL
Winner of CURRENTS'20, NIT Trichy Autonomous Line follower
Winner of KURUKSHETRA, CEG Anna University RoboZest
First Runner-up of International Youth Fest, Line follower
Fourth Runner-up of ATMOS'19, BITS Pilani Law follower
Winner of VASHISTH'19, IIITDM Kanchipuram Law follower
Winner of Roboprix19 and 20, VIT Chennai, Line follower
Winner of Pistoboltz, MIT Chennai, Autonomous Line follower

VOLUNTEER-EXPERIENCE

ML Contributor Oct-Dec 2020
Contributing ML blogs via CodeSpeedy Tech to various blog-based companies. Published 5 ML and DL bogs in their website.

IEEE - RAS April 2019-Present
Active member of the 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.

RoboPrix 2020 2020
Student Coordinator – National Level Robotics Competition