

Kaustubh NAWADE

Developer | Researcher

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Passionate about writing code for software systems. Specifically interested in web, algorithms, machine learning and robotics. Startup founder experience for 1 year and as a software developer for 2 more years. My academic background is in Electronics and Physics from BITS Pilani.

PROFESSIONAL EXPERIENCE

Present May 2017	Software Developer Grey Orange, DELHI NCR, India <ul style="list-style-type: none">> Lead a team of 4 to build a tool from scratch for data visualization, monitoring and system management. Total of 8 different microservices built and deployed.> Design and implementation of an algorithm intended to make AGV's move in close proximity safely. Patent applied. <div>Django Postgres Redis Kafka Influx Grafana Vue.js WebGL Canvas Python JS Nginx Docker</div>
April 2017 Jan 2016	Co-founder Octoloop Systems, DELHI NCR, India <ul style="list-style-type: none">> Designed and made robots for industries and warehouses. First product was built for autonomous picking in factories and warehouses.> Architecture and implementation of the software stack, control and firmware for the robots.> Y-Combinator W-17 batch interviewee (Top 200 amongst 15,000+ applications) <div>Node Vue ROS Image Processing C++ Python JS</div>
Dec 2015 Aug 2015	Internship Grey Orange, DELHI NCR, India <ul style="list-style-type: none">> Navigation and guidance system implementation on a low footprint hardware. <div>Image Processing C DSP</div>

EDUCATION

2011-2016	B.E. Electronics and Electrical + M.Sc Physics, BITS Pilani, 7.32/10
2010	Std XII, Birla High School, Kolkata, 85/100
2008	Std X, B.D.Memorial Institute, Kolkata, 92/100

PUBLICATIONS AND PRESENTATIONS

OPTIMISED PATH PLANNING FOR SOCCER PLAYING HUMANOID ROBOTS

NOV 2015



Geometrical approach to On line Trajectory generation, Obstacle avoidance and Footstep planning for a Humanoid Robot in 15th IEEE-RAS International Conference on Humanoid Robots, Seoul, South Korea. *Kaustubh Nawade, V. Aditya, Apoorv Shrivasta, B.K. Rout*

EXTENDED ABSTRACT ON AUTONOMOUS HUMANOID ROBOT ACyUT

MAY 2015



Presented as an extended abstract in International Conference for Robotics and Automation (ICRA), Seattle, Washington, USA. *Kaustubh Nawade, V. Aditya, Pratyush Kar*

OVERVIEW OF ARCHITECTURE AND ALGORITHMS FOR AUTONOMOUS HUMANOID ROBOT ACyUT

MAY 2015



Presented as a team description paper at the 19th Annual RoboCup International Symposium in Hefei, China. *Kaustubh Nawade, V. Aditya, Pratyush Kar, Anirudh Bhutani, B.K.Rout*

PROJECTS

AcYUT - HUMANOID ROBOT

AUG 2011 - AUG 2015

 github.com/k29/voidMain  [Website](#)

- > Path Planning, Obstacle Avoidance and Optimization to enable humanoid navigation.
- > Designed cognition and behaviour model for autonomous agents for playing soccer
- > Developed a humanoid goalkeeper using reinforcement learning
- > Implemented Localisation for autonomous agents using Monte-Carlo algorithm

C++ Python Image Processing Reinforcement Learning Robotics

SWARM COORDINATION USING CIRCLE FORMATION

AUG 2014 - AUG 2015

 github.com/k29/epuck-main

- > Design and implementation of distributed algorithm for Circle Formation Problem using autonomous E-Pucks

C++ Algorithms Swarm

MUSIC GENRE AND ARTIST CLASSIFICATION VIA SUPERVISED LEARNING FROM LYRICS

JAN 2013 - MAY 2013

- > Classifier to distinguish different genres of music

Python Machine Learning

AWARDS

- > 3rd place at Intel IoT Hackathon as a part of VLSI Design Conference and Embedded Systems Conference at Leela Palace, Bangalore. Made a working prototype for a fall detector for the elderly, which alerts ICE contacts
- > AcYut VI secured 4th position at RoboCup 2013, Netherlands and 2nd position at RoboCup IranOpen 2013 in Teen Size Humanoid Autonomous Soccer Category. (India's first team to qualify for RoboCup)
- > AcYut, India's only entry to RoboGames 2011, San Francisco, USA (world's largest robotics meet), won 1 Gold and 2 Silver Medals
- > Invited to demonstrate AcYut at BARC Mumbai, Robotics Symposium 2011 at RDE Pune, Hannover Milano Fairs - New Delhi, IIT-Mumbai, Kharghpur, Guwahati, VIT-Vellore, NIT Calicut, IIT Kanpur, BITS-Dubai, Hyderabad through 2011-Present
- > Won 2nd prize at Interceptor competition (IP based robots) at IIT Mumbai Techfest in 2013
- > Won 2nd prize at Polaroid competition (IP based robots) at IIT Mumbai Techfest in 2014

FRAMEWORKS AND STACKS

- > Django, Flask, Express, Koa
- > Vue, React
- > Canvas, WebGL, PIXI, Three.js
- > Postgres, Redis, Influx, Elasticsearch
- > Kafka, ZemoMQ
- > Docker, Uwsgi, Nginx
- > Qt, ROS

PROGRAMMING LANGUAGES

Python	●	●	●	●	●
Javascript	●	●	●	●	○
C++	●	●	●	●	○
Erlang	●	●	○	○	○