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
> Lead a team of 4 to build a tool from scratch for data visualization, monitoring and system management.
> Design and implementation of an algorithm designed to make AGV's move in close proximity safely. Patent applied.

Django Postgres Redis Kafka Influx Grafana Vue.js WebGL Canvas Python JS Nginx Docker

April 2017
Jan 2016

Co-founder | Octoloop Systems, DELHI NCR, India
> Octoloop Systems built robots for industries and warehouses. First product was built for autonomous picking in factories and automated warehouses
> Designed and implemented the software stack, control and firmware for the robots
> Y-Combinator W-17 batch interviewee (Top 200 amongst 15,000+ applications)

Node Vue ROS Image Processing C++ Python JS

Dec 2015
Aug 2015

Internship | Grey Orange, DELHI NCR, India
> Navigation and guidance system implementation on a low footprint hardware

Image Processing C DSP

🎓 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
 PDF
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
 Link
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
 PDF
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
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   ● ● ○ ○ ○