Rishi Desai

desai.rishi1@gmail.com | 408-896-8955

EDUCATION

UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN
BS in Computer Science
Expected May 2021

LINKS

Github:// **apache8080**
LinkedIn:// **rishidesai1**

SKILLS

PROGRAMMING

Java • Python • C++
Go • C • Rust
OpenCV • Numpy • NixOS
ROS (Robot Operating System)

OPEN SOURCE

CONTRIBUTIONS

• gonum - numerical libraries for golang
• nvdocker - python library to create docker containers with gpu access
• plant - CLI tool for arbor microservices framework
• ILLIXR - Illinois Extended Reality testbed, the first open-source full-system Extended Reality (XR) testbed.
• cfg - A tool to manage configuration files and use them in production for Confbase

COURSEWORK

UNDERGRADUATE

Discrete Structures
Data Structures
Software Design Studio
Computer Architecture
Computational Photography
Algorithms and Models of Computation
Computer System Organization
Operating System Design
Compiler Construction
Distributed Systems
Machine Learning

STUDENT ORGS

ACM@UIUC

| Member, Vice Chair
August 2017 – Present | Champaign, IL
Vice Chair from 2018 to 2019. Managed ACM Projects and helped organize HackIllinois.

EXPERIENCE

ANDURIL Software Engineering Intern

May 2020 - August 2020 | Irvine, CA

- Designed and built a service to manage an OpenVPN server for secure access to the remote Lattice mesh network.
- Ported custom **NixOS** setup to work with Raspberry Pi's for rapid prototyping.
- Worked with the programming language group on creating a Python API for our numerical **DSL** (Domain Specific Language). This would allow more people to utilize the highly optimized **DSL** compiler to write fast numerical kernels in an easy to write language like Python.
- Technologies: Go, NixOS, OpenVPN, OpenSSL, Haskell, Python, LLVM

SAMSUNG DRVLINE Software Engineering Intern

May 2019 - August 2019 | San Jose, CA

- Worked on the Platform/Integration team for the Samsung DRVLine ADAS Framework. Designed and built the integration testing framework to test perception algorithms with lower level functional algorithms (e.g.: Lane Departure Warning). This improved developer productivity with faster testing feedback. Also helped port and optimize the perception algorithms into the framework.
- Technologies: C++, Python, ZeroMQ, Docker, Jenkins

CISCO Software Engineering Intern

May 2018 - August 2018 | San Jose, CA

- Designed and built a micro-service to automate provisioning of virtual networks, subnets, and virtual machines on to Microsoft Azure via the DNA (Digital Network Architecture) Center web application.
- Technologies: Java, Microsoft Azure, SpringBoot, JavaScript, Cisco IOS, RabbitMQ

BLUEBERRYHOME Software Engineer

May 2016 - December 2017 | San Francisco, CA

- Designed and built a tool to reply to text messages with a web chat app, and a framework to run nightly cronjobs on our database.
- Technologies: NodeJS, AngularJS 1.x, ExpressJS, MongoDB, AWS, Docker

NVIDIA Robotics Intern

May 2015 - September 2015 | San Jose, CA

- Built demo robots for the Jetson TK1 using ROS (Robot Operating System)

PROJECTS

PROJECT HEDWIG

June 2018 - Present | github.com/apache8080/hedwig

- Programmed a Traxxas Rally Slash RC Car to autonomously travel a mapped room at high speeds similar to the MIT RACECAR project, using **ROS**, Jetson TX1, and Arduino Uno.

RESEARCH

DR. SARITA ADVE'S RESEARCH GROUP | Lab Assistant

September 2018 – Present | Champaign, IL
Working with Dr. Sarita Adve's Scalable Specialization project on building a benchmark for **SLAM** and **AR/VR** applications to motivate new computer architecture research for **AR/VR** and Robotics.