



CHIRAG BANGERA

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Education

University of Michigan

B.S.E. Computer Science, Minor in Business; GPA: 3.842/4.000

2020 – 2024

Ann Arbor, MI

- **Honors:** Dean's List, University Honors
- **Activities & Societies:** Tau Beta Pi, Science Olympiad, Google Student Developer Club, Students For Clean Energy, Planet Blue Ambassador, MRun
- **Courses:** Data Structures and Algorithms, Computer Organization, Computer Vision, Practical Programming in Java, Introduction to Logic Design, Introduction to Autonomous Robotics

Work Experience

Amazon

May - Aug 2022

Software Development Engineer Intern

Seattle, WA

- Created a demo application GUI in React with an AWS backend for deployment on AWS RoboMaker console that ran the end-to-end workflow for automatically creating robotics simulation while reducing the time for deployment from 60 minutes to 15
- Wrote a custom API wrapper for the AWS CodeBuild SDK to support automatic user authentication on the AWS RoboMaker console

Honda Research Institute

Jan - Dec 2022

University of Michigan MDP Student Project Team

Ann Arbor, MI

- Worked with ROS Melodic on the Jackal UGV to create an autonomous delivery robot
- Integrated a stereo camera with ROS to create a 3D point cloud for use in SLAM
- Developed an object recognition machine learning model based on YOLOV4 to detect pedestrians and obstacles

University of Michigan

Sept 2020 - Present

Research Assistant

Ann Arbor, MI

- Worked on Percolation modeling problems with Monte Carlo simulations and statistical analysis
- Optimized algorithms with cache awareness, parallelism, and better memory complexity
- Developed a Python notebook wrapper to run underlying C++ code while visualizing input/output data

Aflac

Oct 2020 - Aug 2021

Business Analyst Intern

Ann Arbor, MI

- Developed a custom Android tasks and reminders app to help sales associates manage client-related tasks
- Analyzed sales data using R and advised management on how to improve call efficiency for 10+ employees
- Managed pilot program to introduce and optimize the sales pipeline in the Outreach Sales platform to 10+ employees

Projects

CycleGAN Artistic Style Transfer

Nov - March 2021

Style Transfer Using a Cycle Consistent Adversarial Neural Network Built Using Pytorch

Budget Tracker Android Application

May – Aug 2021

Android Application to Categorize Budget Data Built Using Java

Skills

Programming Languages C++, Java, Python, HTML, CSS, Javascript, React, R

Technical Verilog, Docker, Git, Android Studio, Xcode, Visual Studio, VS Code, Quartus Prime, ModelSim, AWS CloudFormation, AWS CodeBuild, AWS EC2 Builder, AWS RoboMaker, AWS ECR, AWS S3, AWS KMS, AWS CodeCommit, AWS CLI, AWS SDK

Certificates

Predicting House Prices with Regression using TensorFlow, Data Science Math Skills, Getting Started with AWS Machine Learning, Introduction to TensorFlow for Artificial Intelligence: Machine Learning, and Deep Learning, Java Programming: Arrays, Lists, and Structured Data