

BIPUL KUMAR

bipulkum@buffalo.edu — (716) 361-4977 — bipulkumar.com — [Linkedin](#) — [Github](#)

EDUCATION

University at Buffalo, The State University of New York - Masters Aug 2019 - Feb 2021
Major - Computer Science

Staffordshire University - Bachelor of Engineering — Computing (Software) Sep 2010 - Sep 2014

SKILLS

Languages	Python, JavaScript, Java
Software & Tools	Git, ROS, Android Studio
Web Technologies	React, Redux, React Native, Three.js, Node.js, HTML5, CSS3, REST, ES6 Webpack, TypeScript, SCSS, MySQL, Django, AWS
Core Competencies	Design Patterns, Data Visualisation, HCI, UI Patterns, PWA, SPA
Others	Reinforcement learning, Robotics, Distributed Systems

EXPERIENCE

Determinant Studios Feb 2015 - Jun 2019
Software Engineer (Full Stack)

- **SIS** - Demonstrated a web application to exchange condition monitoring data between an X-ray tube device and any connected mobile or desktop devices over web-sockets with team of researchers at Siemens
- **Jossbox Retail Cloud Platform** - Developed an application to visualize data based on customers engagement with any particular section of store providing great insights to marketers, sales and competition analysis
- **Zelio (Luminous India)** - Delivered an IoT-based hybrid mobile app with 10k+ downloads to control inverters
- **IoTWifiHandler** - Solved the problem of WiFi connection feedback by constructing a react-native plugin that handles the supplicant state and ensures that connectivity happens with the right peer. (Open source, Android)
- **Natty** - Collaborated with fellow engineer to build the E-commerce website for independent entrepreneurs
- **Waferspace** - Assembled company's website by coding Front-end web UI and back-end (php, JavaScript, MySQL)
- **Stash Wealth** - Implemented User Interfaces and web based admin/client application dashboard for top rated financial advisory firm
- **SmallChange.ngo** - Worked on user interface implementation for online donation platform SmallChange.ngo utilized by 63 NGOs to crowdfund programs and projects.
- **Housefly** - Created a prototype 3D application for home customisation (Three.js, WebGL, JavaScript)

PROJECTS

- **Humanoid Soccer Bot** - Undertook project to make a robot(OP3) detect and kick a ball with a team of 3
- **Robot Learning** - Led and worked with fellow student to explore multi-agent RL techniques for robot to perform foraging task (Python, Webots, YouBot)
- **Reinforcement learning** - Experimented with various RL algorithms in Atari environments to present its working (DQN, DDQN, DDPG, A2C, Pytorch)
- **Face Detection** - Viola-Jones Algorithm - co-worked with colleague to demonstrate working of algorithm; four steps - Haar feature Selection. Integral Image Creation, AdaBoost training on weak classifiers and Cascading
- **Distributed Systems** - Implemented Dynamo-style key-value storage based system using five Android AVDs as to provide both availability and linearizability at same time
- **CSS works** - Crafted fun animated pure css works. [Codepen](#) (Featured at [The Dogs of CodePen](#))

[view more](#)