ANURAG BAMBARDEKAR

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EDUCATION

M.S. Electrical & Computer Engineering – **Rutgers University, New Brunswick, NJ** September 2022 – May 2024
Relevant Courses: *Software Engineering, Computer Architecture, Machine Learning, Data Structures & Algorithms* **GPA:***3.92/4*

B.E. Electronics & Telecommunication Engineering – **University of Mumbai, India** June 2016 – October 2020
Relevant Courses: *Communication Networks & Systems, Wireless Networks, Microprocessors & Microcontrollers* **GPA:***8.47/10*

SKILLS

Coding Languages: Python, Javascript, Typescript, Java, C++, C, Shell, CSS, HTML
Databases: MySQL, MongoDB, Amazon RDS
Frameworks: Django, React.js, Flask, Bootstrap, Spring Boot, Express.js
Tools & Libraries: VSCode, vim, git, Powershell, Postman, Node.js, Figma, ROS, Docker, Kubernetes, RabbitMQ, GNURadio, GraphQL, Arduino, WireShark, ROS, SimpleScalar, Amazon Web Services, Azure, LaTeX

EXPERIENCE

Graduate Assistant – **Rutgers University, New Brunswick, NJ** January 2023 – Present
- Pioneering groundbreaking research in machine learning for wireless spectrum sharing at WINLAB, elevating Radio Resource Management and Cognitive Radios.
- Enhanced student outcomes in Computer Architecture & Digital Logic Design through meticulous course refinement, resulting in a 20% boost in student engagement and a 15% increase in assessment effectiveness.
- Introduced 3 impactful modules leveraging RISC-V, Linux, Python and C++ skills, driving a surge in student engagement and assessment efficacy.
- Mentored 79 summer interns, fostering collaboration and guiding projects across diverse domains.
- Led initiatives in 5G, AI, IoT, and Robotics, spearheading the development of 10 impactful projects poised to redefine technological landscapes.

Junior Technical Consultant – **Encora Innovations Labs, India** October 2021 – May 2022
- Spearheaded the successful deployment of an IoT Perishable Goods Monitoring System at DHL, resulting in a 80% reduction in perishable goods spoilage rates through real-time monitoring and proactive management of environmental conditions.
- Implemented Kubernetes deployment strategies, reducing deployment time by 20% and resource usage by 50%, respectively, optimizing operational efficiency and enhancing system scalability at DHL's warehouse and logistics operations.

PROJECTS

Stocker SEWA (https://bit.ly/49866Fm) January 2023 – May 2023
- Engineered a sophisticated S&P500 analysis web application using Django, featuring predictive tools like moving averages and sentiment analysis, empowering users with top stock insights and sector trends.
- Implemented Bayesian regression, k-means clustering leveraging beta values, and interactive visualization, enhancing user decision-making with comprehensive market insights and facilitating optimized investment strategies.

Urgent Care Management System (https://bit.ly/4bk2uST) September 2022 – December 2022
- Spearheaded the development of a healthcare solution optimizing appointment scheduling, resulting in a 25% reduction in patient wait times and improved scheduling accuracy.
- Designed a dynamic platform encompassing patient registration, automated billing, and real-time doctor availability search.
- Architected a MySQL-on-AWS backend with JavaScript, Node.js, and Express, integrating Twilio for immediate SMS alerts and implementing role-based access for enhanced security and usability.

Real Time Analysis of Surveillance Camera June 2019 – October 2020
- Implemented advanced security measures using OpenCV and TensorFlow, achieving 90% accuracy in object detection, including weapons and unattended bags, with Faster R-CNN.
- Published research on "Real-time Analysis of Video Surveillance using Machine Learning and Object Recognition" in IRJET, showcasing expertise in facial analysis, object detection, and motion tracking algorithms for enhanced security in real-time video surveillance feeds.

IoT Medicine Vending System February 2019 – March 2019
- Developed a PIN-authenticated, RFID-enabled medication dispensing system, integrating diverse hardware components for streamlined patient medication retrieval and improved accessibility to rural areas.
- Designed an intuitive interface for doctors to manage prescriptions, minimizing errors and enhancing record-keeping.
- Awarded Second Prize at the National Level IoT Challenge 2019 for demonstrating scalability potential and positive impact through seamless integration of hardware components and cutting-edge technologies in the medication dispensing system.