Nishant Begani

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EDUCATION

University of California, San Diego **Sep 2021 - Dec 2024**
B.S. Mathematics & Computer Science and Minor in Data Science
- **Awards:** Provost Honor List (5x)

TECHNICAL SKILLS

Programming Languages: Python, Java, C/C++, C#, Go, JavaScript, TypeScript, HTML, CSS, Swift, Bash, Ruby, R, XML
Frameworks & Libraries: React, Next.js, Node.js, Express.js, Open CV, PyTorch, JUnit, RESTful APIs, Selenium Cucumber, Pandas, SciPy, NumPy, Matplotlib, Seaborn, WebDriver.IO, GraphQL
Databases & Cloud: NoSQL, PostgreSQL, DynamoDB, AWS Lambda, AWS API Gateway, ROS2, Azure, Kubernetes
Tools: Git, GitHub, Unix Shell, PowerShell, VS Code, XCode, Jupyter Notebook, Postman, Jenkins, Docker, Jira

EXPERIENCE

Mercury Alert AI (Healthcare AI Startup) | *Software Engineer and Machine Learning Engineer* **May 2024 – Sep 2024**
San Diego, CA
- Developed a high-performance Two-Way Audio system using AWS Chime SDK, Lambda, and WebRTC, boosting patient-caregiver communication efficiency by 70% and handling 500+ concurrent connections
- Collaborated with a cross-functional team in labeling 8,000+ diverse video frames, resulting in a 15% improvement in Computer Vision Model accuracy and enabling real-time fall detection with 98% precision
- Implemented efficient backend DynamoDB tables, optimizing data storage and retrieval for 20+ IoT device types, resulting in a memory reliance by 60%

CircuCare | *Lead Full-Stack Developer* **Jun 2024 – Sep 2024**
San Diego, CA
- Spearheaded a team of 4 to develop deploy a full-stack web application using Next.js, resulting in a 40% improvement in page load times, and a 25% increase in user engagement.
- Re-engineered the CircuCare App's backend, optimizing vital recording from ultrasound patches and improving data processing speed by 30%

Enzigma | *Software Engineer* **Jun 2023 – Sep 2023**
Pune, India
- Implemented a comprehensive Frontend UI Testing Framework for PWR Apps using Selenium and Cucumber.js, achieving 95% cross-browser compatibility across Chrome, Firefox, and Safari
- Executed 100+ automated UI tests for critical user flows including Login and Features pages, integrating real-time data from RESTful APIs to ensure data integrity and improve test coverage by 30%
- Created an automated Test Reporting system with screenshots and high-priority email notifications, reducing manual testing efforts by 50%

PROJECTS

Pupper Jones A Robot | *ROS2, IMU, Human Evaluation, Collaboration* **Mar 2024 – Jun 2024**
- Developed human-robot collaborative board game using MiniPupper robot and ROS2
- Resolved real-time processing challenges to enable fluid robot movements and responsive gameplay
- Conducted user study with 30 participants: 66% completion rate, 4.2/5 average engagement score
- Implemented IMU-based motion control, reducing positioning errors by 40% and enhancing gameplay smoothness

News Networks Sentiment Analysis | *Leadership, NLP Models, Inferential & Predictive Analysis* **Jan 2024 – Mar 2024**
- Designed and implemented a NLP pipeline to analyze 2,500+ tweets from top 5 US news channels, utilizing Vader, TextBlob, and Flair for comprehensive sentiment analysis
- Executed advanced statistical analysis, achieving 95% confidence in sentiment-engagement correlation

Rogue Fortune Teller | *Frontend, E2E Testing, DevOPs, Leadership, Agile* **Mar 2023 – Jun 2023**
- Led a 9-developer team to 2nd place out of 31 teams in web app development
- Architected and implemented a CI/CD pipeline integrating WebDriver for unit testing and Puppeteer for E2E testing, reducing deployment time by 40% and catching 95% of bugs pre-production

LEADERSHIP

Computer Science & Engineering Society at UCSD | *Marketing Chair* **Jun 2023 – Mar 2024**
- Spearheaded promotion of 6+ events and increased membership by 40% through innovative social media strategies and industry collaborations