

# Nikhil Naikar, MEng

## Education

**Master of Engineering** **University of Calgary** **Nov 2023**

- Specialization in Software Engineering, GPA: 3.9
- Courses: Databases, Machine Learning, Algorithms, Data Structures, Design Patterns, Software Architecture & Testing

**Bachelor of Science** **University of Calgary** **Apr 2022**

- Major in Electrical Engineering, GPA: 3.4
- Courses: Circuits, Logic Design, Signal Processing, Computer Networks, Photovoltaic Systems, Power Systems & Protection

## Experience

**Software Engineer Intern** **Benevity** **May – Aug 2023**

- Developed a Full-Stack feature similar to Spotify's 'Wrapped' summaries using Scrum and Sprints in an Agile environment.
- Contributed to Frontend design reviews in Figma, prioritized user-friendly interfaces and visually appealing infographics.
- Designed Backend architecture, utilized Java and Spring Boot to build RESTful APIs for data retrieval from Benevity's platform (10M+ users) and enabling decoupled Frontend-Backend communication.
- Supported QA testing and UAT, conducted regression testing, troubleshooted bugs, and gathered client feedback to validate functionalities against business requirements.
- Orchestrated a CI/CD pipeline with Jenkins for automated testing and streamlined serverless deployments onto AWS (utilizing Docker, EC2 instance, S3 bucket, JUnit tests, GitHub).

**Project Manager Intern** **Siemens Energy** **May 2021 – Aug 2022**

- Supported lead project manager throughout multiple project lifecycles, focused on project efficiently and client satisfaction.
- Collaborated with cross-functional teams to coordinate tasks, equipment needed, team availability, and scheduling accuracy.
- Oversaw procurement tasks, obtained quotes, inventory, site logistics, and supported the team on-site with emergent needs.
- Managed timely completions of certifications, tests, and training for team members to meet site compliance requirements.
- Recorded progress, tracked expenses and reported to lead project manager, ensured project was on track and within budget.
- Maintained open communication with clients, delivered updates, addressed on-site issues, and outlined next steps.

## Projects

To view more info on my projects, kindly refer to my [website](#) or [GitHub](#)

**Airbnb Price Prediction** **Big Data**

- Developed a ML model to help Airbnb hosts with accurate property pricing and for customers to evaluate pricing fairness.
- Built a Natural Language Processing (NLP) model for sentiment analysis (Positive, Negative, Neutral) on reviews.
- Utilized Databricks and PySpark to efficiently process a dataset of over 100,000 rows through distributed computing.
- Preprocessed reviews to improve data quality by removing stop words, applying snowball stemming, and other techniques.
- Experimented with feature extraction methods (TF-IDF, HashingTF), multiple ML algorithms, and fine-tuning of many hyperparameters to optimize model effectiveness.

**FODS** **Internet of Things**

- Built a system to detect dangerous heat levels on farms, aimed to prevent farm fires and associated risks.
- Partnered with Aurora Wireless Networks, integrated the thermal detection system with their "MLink" technology.
- Assisted with the design of the system architecture, the design of the PCBs for the base and all the endpoints.
- Wrote C# code to implement core functionalities such as temperature recording, GPS tracking, and data transmission.
- Configured a MySQL database on AWS, ensured data consistently and programmed the connection to the server.
- Performed extensive testing in the lab and at W.A. Ranches, validated compliance with accuracy and reliability requirements.

## Skills

- **Machine Learning:** Scikit-learn, TensorFlow, PySpark, Databricks, Natural Language Processing (NLP)
- **Languages & Frameworks:** Java, Python, C++, HTML, CSS, JavaScript, Vue, Bootstrap, SQL, Spring Boot, Flask
- **Testing:** Jira, JUnit, Selenium, Manual / Automated Test Plans, Code Coverage, Black & White Box / Mutation Testing
- **Other:** Object Oriented Programming (OOP), SOLID principles, AWS, Docker, Jenkins, CI/CD, Git, Slack, Agile
- **Certificates:** Lean Six Sigma White Belt, AWS Cloud Practitioner, AWS Solutions Architect Associate