# **Sunehildeep Singh**

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#### **SUMMARY**

Software Engineer with 3.5+ years of experience in software development and AI/machine learning. Specialized in designing high-performance web applications and machine learning models.

#### **TECHNICAL SKILLS**

Programming Languages: Python, JavaScript, Java, C#, SQL, PHP, Kotlin, Go

Frameworks & Libraries: TensorFlow, PyTorch, scikit-learn, React, Next.js, Node.js, .NET, Flask, Chalice, FastAPI

Cloud & DevOps: AWS, Azure, GCP, Docker, CI/CD

Data Analysis Tools: Pandas, NumPy, Matplotlib, Spark, Hadoop

Productivity Tools: Git, Selenium, Jira, Trello

### RELEVANT EXPERIENCE

# **Software Engineer**

Jan. 2023 – Present

Sun Glow Window Coverings Ltd.

Toronto, ON

- Built a Naive Bayes model for HomeDepot orders, cutting processing time by 20%, saving 50 work hours monthly.
- Spearheaded development of 3 Next.js/React sites, boosting performance by 40% and driving record breaking revenue.
- Developed and launched Dealer Portal using Next.js, enhancing user engagement by 30%.
- Designed and implemented <u>Builder Portal</u> for condo construction contracts, resulting in a 10% revenue increase.
- Redesigned the Off Cut Shades website, integrating SEO strategies that led to a 40% rise in organic search traffic.
- Optimized CI/CD pipeline, cutting deployment time by 50% and enhancing code quality.
- Led a 2-member team on Web & Python development, serving as liaison with management to boost productivity by 25%.

# Al Engineer (Internship)

Sept. 2024 - Dec. 2024

Tandem Experiences

Toronto, ON

- Architected end-to-end AI dating transition system for GenZ users, featuring multi-stage NLP and dual LLM pipeline
- Built advanced NLP pipeline using VADER sentiment analysis to extract mutual interests between matched profiles
- Implemented TF-IDF scoring and cosine similarity algorithms to validate profile matching accuracy
- Designed parallel processing system for simultaneous entity extraction and geospatial computations
- Developed dual-phase LLM system for point of interest category generation and personalized date invitations
- Created intelligent venue filtering system using Google Maps API, geographical constraints, and user preferences
- Built FastAPI architecture orchestrating data flow between NLP, LLM, and location services
- Achieved 95% success rate across comprehensive system integration testing

# **Software Developer**

Apr. 2020 – May 2021

Dreamz Academy Remote

- Developed a comprehensive IELTS training application using C# for an immigration consulting firm during the pandemic.
- Engineered multiple interactive page views for Listening, Reading, and Writing, with automated evaluation.
- Enhanced operational efficiency by significantly reducing manual work, facilitating remote learning for students.

#### **EDUCATION**

## Bachelors of Software Engineering Technology - Artificial Intelligence

Sept. 2021 – Dec. 2024

Centennial College

Toronto, ON

Relevant Coursework (GPA: 4.3/4.5): Supervised & Unsupervised Learning, Deep Learning, Neural Networks, NLP,
Data Structures & Algorithms, Cloud Machine Learning, Big Data Tools

#### **PROJECTS**

## **Encoder-Decoder Transformer LLM** | *TensorFlow*

GitHub

- Built a transformer LLM from scratch achieving 85% accuracy on Reddit chat data.
- Optimized inference time by 30% using curriculum learning, maintaining model performance.
- Based on Google's Research Paper "Attention Is All You Need"

#### RNN Text Generator Model | TensorFlow

GitHub

- Engineered an LSTM-based RNN to generate coherent and grammatically accurate text.
- Demonstrated capabilities similar to GPT models in natural language generation.

# **GPT Portfolio** | *Next.js*

GitHub

- Designed a portfolio leveraging LLM to generate real-time, personalized content.
- Implemented prompt engineering with Gemini to enhance user experience.

# **Custom Fan Helios** | C#

GitHub

- Developed a widely adopted software to control fan speeds on Acer Helios laptops.
- Maintained a user base of over 500 with regular updates and support.

## **KEY ACHIEVEMENTS**

# **Google Foobar Invitation:**

- Received an invitation to Google's secretive Foobar hiring process in 2018, highlighting exceptional problem-solving skills and coding expertise.

## **Arctic Code Vault Contributor:**

- Earned the prestigious Arctic Code Vault Contributor Badge in 2020, recognizing contributions to open source projects that have been archived for long-term preservation.

# **Community Contributions:**

- Active early involvement in the SA:MP community, developing scripts and tools that became widely used and respected, showcasing leadership and technical abilities from a young age.