

# Tej Panchal

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## Summary

Innovative Software Engineer with a strong background in AI, machine learning, and data analysis. Experienced in developing intelligent systems, natural language processing models, and data-driven applications. Adept at prompt engineering, model fine-tuning, and implementing AI solutions to solve complex problems. Committed to continuous learning and staying updated with the latest advancements in AI and data science.

## Skills

**Programming:** Java, Python, JavaScript, SQL, HTML/CSS, React.js

**AI & Machine Learning:** TensorFlow, PyTorch, Scikit-learn, Keras, NLTK, SpaCy

**Cloud Technologies:** AWS (SageMaker, Comprehend, Rekognition), Azure, MongoDB

**Tools:** Jenkins, GitHub, CloudFormation, MS Office, Docker, PyCharm, Eclipse, Jupyter, Agile, Jira, Scrum, Figma, Linux OS

**Software Development:** .NET, RESTful APIs, SQL, GraphQL

## Work Experience

### Drevol LLC

Redmond, WA

Software Engineer

March 2024 - Present

- Designed and deployed AI-powered solutions using Python, TensorFlow, and PyTorch, enhancing service manufacturing efficiency by 25%.
- Created and refined prompts for ChatGPT, optimizing responses for business applications and improving accuracy by 30%.
- Collaborated with cross-functional teams to embed AI capabilities into existing software products, ensuring smooth and efficient integration.
- Conducted thorough data analysis and visualization, providing actionable insights that supported strategic decision-making.

### Niks Real Estate INC.

Kirkland, WA

Software Engineer Intern

Sep 2023 - Mar 2024

- Analyzed large datasets of property listings using Python and Pandas to identify market trends and pricing patterns.
- Developed a robust machine learning model to predict property values, achieving 85% accuracy. Utilized algorithms such as Linear Regression and Decision Trees and validated the model using cross-validation techniques.
- Designed and implemented interactive dashboards with Tableau to visualize real estate market insights.

### Peer and Academic Resource Center

Sacramento, CA

AI and Data Science Tutor

Aug 2021 - May 2023

- Provided tutoring in AI, machine learning, and data analysis courses, focusing on Python-based implementations.
- Assisted students in developing ML models and conducting data analysis projects, enhancing their practical understanding.

### Engineering and Computer Science Dean's Office

Sacramento, CA

Student Assistant

Nov 2022 - May 2023

- Provided specialized technical support to faculty and staff, focusing on AI and data analysis projects.
- Developed and maintained machine learning models to analyze departmental data and improve decision-making processes.
- Upgraded the departmental website with AI-powered features, enhancing user experience and functionality.

## Education

### California State University, Sacramento

Sacramento, CA

B.S in Computer Science, Minor Mathematics

GPA: 3.6/4.0, Dean's List

Aug '19 - May '23

Data Structures & Algorithms, Objects & Design, Computer Organization & Programming, Object-Oriented Computer Graphics, Statistics & Applications, Operating system principles, Artificial Intelligence, Business and Computer Ethics

## Projects

### AI-Powered Event Recommendation System

May 2022 - Aug 2022

- Designed and implemented an AI-driven event recommendation system using collaborative filtering and content based algorithms.
- Utilized Python, TensorFlow, and AWS SageMaker for model training and deployment.

### Sentiment Analysis Tool for Education Feedback

Jan 2022 - Apr 2022

- Developed a sentiment analysis tool to analyze student feedback on courses using NLTK and SpaCy.
- Implemented a web interface using React.js for visualizing sentiment trends and insights.

### Predictive Ticketing System

Aug 2022 - May 2023

- Created an ML-based ticketing system that predicts ticket resolution times and assigns tickets to appropriate teams.
- Employed Python, scikit-learn, and AWS for model development and deployment.