

# Siddharth Kundu

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## EDUCATION

New Jersey Institute of Technology

MS in Computer Science

Newark, NJ

Expected Graduation – May 2025

## EXPERIENCE

Senior Software Engineer

March 2021 - February 2023

Dotpe

India

- **Pioneered** the development of DotPe's Digital Showroom as the **Founding Engineer**, architecting an ecosystem of digital storefronts, QR-based ordering systems, and integrated payment gateways. This innovation enabled merchants to launch online stores in just 15 seconds, leading to a **28% increase in e-commerce sales** and a **35% rise in new customer acquisition** within 6 months.
- **Engineered** a Google Ads system, allowing merchants to purchase ads to promote their stores directly in Google search results, boosting their online visibility and driving customer traffic.
- Developed an **SEO management system** for merchants to optimize their web apps' search engine rankings, empowering them with control over their digital footprint and ensuring their storefronts reached a wider audience.
- Designed and built the admin console that allowed merchants to manage the backend operations of their online stores, simplifying inventory, order management, and delivery integrations.
- Spearheaded the creation of **DotDesign**, a cutting-edge internal design system that reduced UI development time by **25%** and decreased frontend bugs by **40%**, elevating the overall efficiency and consistency across all DotPe products.
- Led a major technical transition from Redux to **React Query**, optimizing the codebase by **20%** and improving application performance by another **20%**, significantly enhancing the user experience and scalability of our cross-platform apps.

Software Engineer II

August 2020 – February 2021

Acko Insurance

India

- Architected a high-performance NextJS web application that became the cornerstone of our digital presence, scaling seamlessly to support an impressive **100,000 monthly active users** and setting new benchmarks in the insurance tech space.
- Spearheaded a browser performance revolution, implementing cutting-edge enhancements that slashed page load times by a staggering **60%**, catapulting user engagement by **35%** and driving a **20% surge** in conversion rates.

Software Engineer

February 2020 – July 2020

Honeybridge

India

- Pioneered the implementation of a cutting-edge tech stack (Javascript, NextJS, Redux, SCSS, Tailwind), revolutionizing our development pipeline and achieving a **40% leap in efficiency**, while slashing time-to-market for new features by an impressive **30%**.
- Crafted a state-of-the-art, responsive user interface that not only dazzled users, elevating satisfaction ratings by **45%**, but also dramatically reduced UI-related support tickets by **60%**, showcasing the perfect blend of form and function.

Software Engineer

January 2018 – February 2020

Vinculum Solutions

India

- Spearheaded a critical performance optimization initiative, fine-tuning parameters and integrating innovative features that resulted in a **20% boost in system capabilities**, markedly enhancing our software's competitive edge in the market.
- Single-handedly designed and deployed a high-impact web application that became a conversion powerhouse, skyrocketing customer conversion rates by an extraordinary **70%** within just 6 months, showcasing my ability to deliver results that directly impact the bottom line.

## TECHNICAL SKILLS

**Languages:** Javascript, Typescript, Python, Go, HTML/CSS, SQL (Postgres), MongoDB

**Frameworks:** React, NextJS, Jest, Django, Gin, MaterialUI, TailwindCSS, React Query, Langchain, AWS S3

**Developer Tools:** Git, Docker, Storybook, Webpack, Github Actions, Jira

**Libraries:** Pytorch, Pandas, NumPy, Matplotlib, Seaborn

### **PDFReader** | *NextJS, AWS S3, OpenAI, PineconeDB, NeonDB*

- Engineered a full-stack NextJS application integrating AWS S3, OpenAI, and PineconeDB, showcasing expertise in cloud services, AI integration, and scalable architecture.
- Architected a dynamic, scalable web application enabling seamless PDF uploads and efficient document management via AWS S3.
- Integrated a robust chat feature using AI technologies like Langchain and OpenAI, enhancing user interactivity and responsiveness.
- Optimized the system for scalability, ensuring smooth performance while handling large document volumes and AI-driven user queries.

### **Cosmic Classifier** | *Python, Scikit-learn, Pandas, NumPy, Astropy, Seaborn*

- Engineered a machine learning model achieving 95% accuracy in classifying celestial objects across 100,000+ astronomical samples.
- Optimized model accuracy through rigorous training and validation on astronomical datasets.
- Implemented PCA and advanced feature engineering, successfully reducing data dimension by 75% while retaining 98% of variance.

### **Forecasting Report** | *Statistical Forecasting*

- Devised a competitive framework for evaluating **forecasting models** aimed at predicting future prices of pivotal commodities.
- Employed a **Monte Carlo simulation** experiment to assess the predictive capabilities of forecasting models (**ARMA, Auto-Arima, Exponential Smoothing**) against a known (true) model.
- Analyzed the forecasting methodologies based on parameters including coverage, interval width, and prediction bias, resulting in Auto-Arima as the optimal model with a remarkable **95%** coverage.

### **Stroke Prediction** | *Python, Scikit-Learn, Numpy, Pandas, Matplotlib*

- Engineered a sophisticated stroke prediction model utilizing Scikit-Learn, enhancing model accuracy by 20% through iterative feature engineering and hyperparameter optimization.
- Leveraged advanced data preprocessing techniques and feature engineering with Pandas and NumPy, resulting in improved dataset relevance and model performance.
- Employed Matplotlib to create detailed data visualizations that facilitated the interpretation of medical data trends, significantly enhancing the model's predictive insights for stroke risks.