

Saketh Bireddy

609-256-3410 | sbireddy@purdue.edu | [linkedin.com/in/saketh-bireddy](https://www.linkedin.com/in/saketh-bireddy) | github.com/rbsaketh | saketh-bireddy.vercel.app

EDUCATION

Purdue University

Bachelor of Science in Computer Science, GPA: 3.71 (Dean's List & Semester Honors)

West Lafayette, IN

Expected May 2026

- **Relevant Coursework:** Data Structures and Algorithms, Computer Architecture, Object-Oriented Programming in Java, Programming in C, Discrete Math
- **Clubs:** Purdue Hackers, ML@Purdue, Boiler Blockchain, Hack the Future

EXPERIENCE

Software Engineer Intern

IpsierLab

August 2024 – Present

Remote

- Engineering the frontend development of a customizable eCommerce platform using React.js and Tailwind CSS and cutting payment process time through Stripe integration.
- Implementing RESTful APIs and XML-based product customization, enhancing B2B client engagement and increasing client retention.
- Optimized Java modules and Postgres queries, boosting application performance by 20% and supporting 500+ users.

Software Engineer Intern

Mingley

June 2024 – August 2024

Remote

- Led discussions on system architecture, followed agile methodologies and CI/CD pipelines, and onboarded 100+ users to the waitlist, setting the foundation for the app's launch.
- Architected and prototyped 10+ UI/UX components using Figma, enhancing mobile app usability and visual appeal.
- Built a scalable community page with TypeScript, React Native, Echo, and CSS, enabling cross-platform iOS/Android compatibility.
- Integrated backend services with Supabase, PostgreSQL, and REST APIs in C# and .NET, reducing system error rates by 20%.

Data Science Researcher

John Deere

January 2024 – May 2024

West Lafayette, Indiana

- Developed and collaborated on a demand forecasting model with an average of 0.4 NRMSE using Python, optimizing inventory for 100,000+ John Deere part location combinations.
- Streamlined data cleansing and exploratory analysis techniques using Pandas, reducing inventory discrepancies and costs by 10%.
- Applied time series machine learning models like S-ARIMA and Exponential Smoothing, evaluated NRMSE, RMSE, and ME metrics, and visualized data using NumPy.

AI Researcher

Research Study

May 2023 – July 2023

Remote

- Collaborated and coauthored research with ISEF Regeneron Finalist Shreya Amalapurapu, achieving 90% accuracy in classifying drug-disease pairs using the COMPLEX algorithm within the StellarGraph framework.
- Processed 1,000+ graph data points from DrugBank and Stanford datasets using Pandas and rdkit, enhancing prediction reliability.
- Trained and fine-tuned the model using TensorFlow's Keras API, Adam optimizer, and Binary Cross Entropy loss, amplifying model robustness by 10% for future biomedical research applications.

PROJECTS

PantryPro AI | Next.js, React.js, Firebase, Material UI, Llama 3.1 API, OpenAI API

June 2024 – July 2024

- Developed a pantry management app with Firebase Auth, ensuring secure login and seamless item management.
- Created a backend server in Express, implementing CORS and middleware to handle LLM API calls efficiently.
- Integrated AI-driven image classification and recipe suggestions, enhancing user experience with intelligent features.

Hack the Future Interview System | HTML, CSS, React.js, Node.js, Express.js, MongoDB

September 2023 – May 2024

- Developed a web app for Purdue Hack the Future, now actively used by 6 executive board members for interview management.
- Set up a server connected to MongoDB, and integrated Docker for a fully-functioning, dockerized web app with user authentication.
- Incorporated conditional logic and filtering, improving the efficiency and accuracy of the interview process.

Stock Sentiment Analysis Predictor | Python, Pandas, LSTM, BERT, PyTorch, NLP

July 2023 – August 2023

- Engineered an AI system that analyzed 500 unstructured social media entries and accurately predicted stock values.
- Led data cleansing using Python/Pandas, applying tokenization and stemming for high-quality input to LSTM and BERT models.
- Designed an LSTM network (85% accuracy) and fine-tuned BERT (95% accuracy) with PyTorch, optimizing stock predictions.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, C, R, HTML, CSS, C#, XML, TypeScript

Tools & Databases: Docker, Stripe, Supabase, Firebase, Echo, Figma, REST API, PostgreSQL, SQL, MongoDB

Frameworks: React Native, Next.js, Express.js, .NET, React.js, Node.js, TensorFlow, PyTorch

Libraries: Neural Networks, LSTMs, NLP, Pandas, Matplotlib, NumPy, rdkit, Llama 3.1, OpenAI