Saketh Bireddy

609-256-3410 | sbireddy@purdue.edu | linkedin.com/in/saketh-bireddy | github.com/rbsaketh | saketh-bireddy.vercel.app

Education

Purdue University West Lafayette, IN
Bachelor of Science in Computer Science, GPA: 3.71 (Dean's List & Semester Honors) *Expected May 2026*

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

Experience

Software Engineer Intern August 2024 – Present
IpserLab *Remote*

- Engineering the frontend development of a customizable eCommerce platform using React.js and TailwindCSS and cut payment process time by 15% through Stripe integration.
- Optimized backend Java modules and Postgres queries, enhancing application performance by 20% and supporting over 5,000 concurrent users with reliable data management.
- Implementing RESTful APIs and XML-based product customization, boosting B2B client engagement and increasing client retention.

Software Engineer Intern June 2024 – August 2024
Mingley *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.
- Engineered a scalable community page using React Native, Echo, React Hooks, and CSS, allowing cross-platform compatibility for iOS and Android.
- Integrated backend services with Supabase, PostgreSQL, and a REST API in C# and .NET, reducing data flow and system error rates by 20%.

Undergraduate Data Science Researcher January 2024 – May 2024
John Deere *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 processes using Pandas, reducing inventory discrepancies and lowering 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 May 2022 – July 2022
Research Study *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 and analyzed 1,000+ graph data points from DrugBank and Stanford datasets using Pandas and rdkit, enhancing prediction reliability.
- Trained and optimized the model using TensorFlow's Keras API with Adam optimizer and Binary Cross Entropy loss, increasing model robustness by 10% for future biomedical research.

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, enabling secure login and seamless item management.
- Integrated AI for 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

- Built a web app for the executive board of Purdue Hack the Future to streamline interviews, reducing administrative workload with advanced scheduling features.
- 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

- Preprocessed 500 financial articles and trained an LSTM model, achieving 85% accuracy in stock prediction.
- Fine-tuned BERT for sentiment analysis, optimizing accuracy to 95% for market trend predictions.

Technical Skills

Languages: Java, Python, JavaScript, C, R, HTML, CSS, C#
Tools & Databases: 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