Saketh Bireddy

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EDUCATION

PURDUE UNIVERSITY West Lafayette, Indiana
Bachelor's of Computer Science Expected May 2027

EXPERIENCE

HEADSTARTER AI Remote
Incoming Software Engineer Fellow July 2024 - September 2024

- During the next 7 weeks, I will build 5 AI projects, participate in 5-weekend hackathons, build 1 final project with the goal of 1000+ users, and get interview prep, resume reviews, and feedback from software engineers

MINGLEY Remote
Software Engineer Intern June 2024 - Present

- Facilitating discussions on system architecture for mobile and desktop applications, engaging with design, development, and product teams to ensure alignment post-completion of core features and designs; planning to deploy the app on July 17th
- Designed and prototyped user interfaces by creating low to high-fidelity versions of mobile and community pages using Figma, improving the usability and aesthetics of the application
- Actively developing the community page of the mobile application using React Native for iOS and Android, CSS, React Hooks, and leveraging Echo for compiling and building on Windows OS to ensure cross-platform compatibility and robust performance
- Integrating backend services using Supabase and a REST API written in C# and .NET, ensuring seamless connectivity and data flow between the application and server

JOHN DEERE West Lafayette, Indiana
Undergraduate Researcher and Programmer January 2023 - May 2024

- Collaborated with a team to use Python for advanced machine learning and time series data analysis, achieving a precise 12-month demand forecasting model with an average NRMSE of 0.4 for John Deere parts per location
- Employed advanced data cleansing and exploratory data analysis techniques using Pandas to dissect data, resulting in a significant reduction in inventory discrepancies and costs
- Leveraged machine learning models like Seasonal Naive, S-ARIMA, and Exponential Smoothing and calculated numerous metrics such as NRMSE, RMSE, and ME using NumPy; data was visualized using matplotlib

RESEARCH STUDY Remote
Co-author, Researcher, and Programmer May 2022 - July 2022

- Worked with ISEF Regeneron Finalist Shreya Amalapurapu to program drug-disease similarities using graph learning (disease nodes and drug nodes) and Python, leading to a high-accuracy predictive model
- Employed ComplEX, a link prediction algorithm, to run our node embedding framework: 100 epochs produced the highest binary accuracy (91%) on our validation set
- Published the research in the IYRI Computer Science Journal

INSPIRIT AI SCHOLARS PROGRAM Remote
Computer Science Scholar and Programmer June 2021- August 2021

- Worked on an AI Social Good project, Natural Language Processing for Finance, to create a system that uses text sentimental statements to predict a stock value
- Led data cleansing using Python and Pandas and applied tokenization and stemming to handle unstructured social media data, ensuring high-quality input for LSTM and BERT models
- Collaboratively designed an LSTM neural network and fine-tuned a BERT model using the PyTorch Hugging Face library, achieving nearly 95% accuracy with BERT and 85% with LSTM for stock value prediction

PROJECTS

PURDUE HACK THE FUTURE West Lafayette, Indiana
Full-Stack Developer September 2023 – May 2024

- Developed a user-friendly web application for form management and response analysis, utilizing a full-stack approach with HTML, CSS, React.js for the frontend, Node.js for the backend
- Integrated advanced form features such as conditional logic, status-based sorting, detailed filtering, and single-response-per-email verification, enhancing user interaction and data integrity

SKILLS

- Languages: Java, Python, JavaScript, HTML, CSS, C, R, C#
- Technologies: Neural Networks, LSTMs, NLP, Supabase, .NET, Pandas, Matplotlib, NumPy, React.js, Node.js, Git