SAHITH BODLA

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EDUCATION

University of Illinois at Urbana-Champaign *August 2022 – May 2026*
Bachelor of Science in Computer Science with Minor in Economics
Pursuing combined program with Master's in Computer Science to be completed by 2026

WORK EXPERIENCE

Gen Digital, *Software Engineer Intern* *June 2024 – August 2024*

- Developed and deployed an AI-driven Scam Detection API, achieving a 90% accuracy rate in phishing email identification and strengthening overall email security
- Designed and implemented scalable AWS infrastructure solutions utilizing services like Lambda, Step Functions, IAM, and Key Stores, significantly optimizing DevOps efficiency and system reliability
- Spearheaded cross-functional collaboration with infrastructure and UX teams to design, develop, and integrate enhanced email security measures, resulting in seamless end-user interaction.
- Acquired in-depth experience in software development cycles, Agile methodologies, and efficient workflow practices

OneSpace, *Cofounder, Full-Stack Engineer* *February 2023 – present*

- Implemented a full-stack Electron-based desktop app for document annotation and text-editing, streamlining workflows and enhancing user functionality
- Collaborated closely with team members to publish on the App Store, gaining foundational expertise in startup dynamics and market distribution strategies
- Secured over $150,000 in funding through the Cozad New Venture Challenge, standing out for product innovation and entrepreneurial strategy among industry competitors
- Currently overseeing the testing phase with over 1,000 early adopters, including industry leaders from companies such as Trello and OrangeQC, to refine the platform's offerings

CS 222: Software Design Lab, *Course Assistant* *January 2024 – present*

- Created course content, including lecture slides and a robust web infrastructure, to support the educational experience for 400 students
- Managed and mentored 6 student teams on software development projects, fostering collaboration, adherence to Git practices, workflow methodologies, and code testing standards
- Guided students in adopting modern frameworks, ensuring hands-on learning and industry-aligned development practices for future career readiness

ACTIVITIES

Aerial WiFi Network with Drones *August 2024-present*

- Implemented an aerial WiFi network using drones equipped with Raspberry Pi 4s to extend connectivity across large outdoor and indoor spaces
- Configured secure, real-time data transmission and optimized signal strength, SNR, throughput, WiFi time-in-flight, and latency across variable distances, altitudes, and environments with ESP32s
- Addressed challenges such as signal attenuation, environmental interference, and power limitations through solutions like directional antennas, beamforming, encryption protocols, and optimized power management.

Founders - Illinois Entrepreneurs, *Project Lead* *February 2023 – present*

- Led a team in developing an all-encompassing website to provide farmers with personalized, accessible information on loans and grants tailored to their specific agricultural needs, built with React and Django REST storing user data in a scalable SQLite DB
- Managed a team for the development of a social media platform tailored to fashion enthusiasts, incorporating a React Native app with a Pinterest-inspired feed and NestJS backend, receiving funding from fashion industry leaders e.g. ZARA and H&M, working with a client
- Launched an interactive website for university entrepreneurs to ideate and collaborate on startup projects and creative development

Disruption Lab, *Software Engineer* *February 2024 – present*

- Built a dynamic RDBMS system to monitor cannabis consumption in Illinois, optimizing data structures to ensure reliability and accuracy
- Developed a user-friendly website to visualize demographic trends and company statistics, providing stakeholders with clear insights
- Enhanced backend infrastructure with MySQL and AWS, improving data retrieval efficiency and system scalability for future growth

Quant Illinois, *Trading Division* *February 2023 – December 2023*

- Research current strategies for momentum trading algorithms e.g. MAC-D, RSI divergence, Ichimoku Cloud
- Simulated portfolios with backtesting to project stock progression and optimize trading strategies
- Engineered and tested pairs trading and statistical arbitrage algorithms, achieving a 130% gain over the S&P 500 benchmark

Teen Safe Driving App *February 2024 – present*

- Developed a comprehensive React Native app to guide young adults and teenagers in learning safe driving practices
- Designed a one-stop interface enabling users to book driving practices, access study materials, and make appointments seamlessly
- Built backend infrastructure using ExpressJS, Firebase, and GCP, ensuring secure and scalable data management

A Deep Dive – Applying AI and Neural Networks to Project Human Biomechanical Efficiency in Swimming *September 2021 – May 2022*

- Utilized advanced Python libraries to perform in-depth image kinematic and pose analysis through convolutional neural networks
- Devised a quantitative framework to assess biomechanics, enhancing the accuracy of skill-level assessments and technique improvement strategies for swimmers
- Created actionable data models that informed training enhancements, sparking interest in AI-driven feedback for athletic performance

TECHNICAL SKILLS

Languages: Python, Java, C++, C, JavaScript, Typescript, Terraform, Terragrunt, HTML/CSS, MySQL, CloudSQL, MongoDB, Neo4j, Swift, MIPS Assembly, Verilog
Developer Tools: Git, Github, Docker, AWS Console, Postman, Firebase, Google Cloud Platform, Visual Studio Code, Google Colab
Frameworks: React, React Native, Vercel, Streamlit, THREE.js, Bootstrap, TailwindCSS, Django REST, Electron, Express.js, Node.js, Next.js, NestJS, Jest
Libraries: TensorFlow, Keras, PyTorch, OpenCV, MediaPipe, Pandas, Scikit-learn, Numpy, Sympy, Scipy, Matplotlib