# Pavlo Bondarenko

## Software Engineer

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Experienced software engineer with over 5 years specializing in backend development and cloud solutions, with a proven track record in enhancing system performance and driving digital transformations. Skilled in developing scalable architectures and engaging digital content, committed to leveraging technology to solve real-world problems.

## Skills

**Languages:** Python, SQL, NoSQL, JavaScript, Typescript, Bash, C++;

## Experience

**Software Engineer & Cloud Solutions Engineer,** QIT Software – Plano, TX Jan 2021 –Apr 2024

- Developed an automated document scanning software using Python, OpenCV, and Azure AI Document Intelligence to streamline data extraction from scanned forms. Integrated the solution with Azure Cloud for secure storage and processing, leveraging machine learning models to classify documents, recognize key data points, and perform OCR (Optical Character Recognition) for text extraction. This enhanced data processing efficiency by reducing manual data entry by 80% and enabling secure, scalable access through the cloud.
- Improved the scalability and reliability of QIT's cloud architecture by designing and migrating critical business applications to Azure App Services, Functions, and Logic Apps. This transition solved frequent downtime issues by implementing elastic scaling, reducing operational costs by 22% and improving uptime by 11%.
- Streamlined user management and access control for 1000+ users by implementing Azure Active Directory to centralize identity and authentication management. This project resolved security vulnerabilities and non-compliance issues while enhancing onboarding/offboarding efficiency for new and departing employees.
- Accelerated data processing speeds by 30% by developing Retrieval-Augmented Generation (RAG) and Large Language Models (LLM) applications for QIT's predictive modeling and anomaly detection solutions. This effort solved the problem of identifying data outliers for customer-facing analytics and reporting.

**Full Stack Developer,** 123 Remodeling – Chicago, IL Sep 2016– May 2018

- Enhanced web traffic by 29% and streamlined usability by redesigning customer-facing websites and mobile apps. Leveraged Next.js, Python, React Native, and Swift to create responsive layouts that solved navigation issues, ensuring seamless content discovery. Implemented best practices for UX design, addressing problems of inconsistent page load times and improving engagement metrics.
- Boosted brand visibility by 36% through impactful visual content created using Adobe Photoshop, Illustrator, and After Effects. Developed a consistent content calendar and cross-platform promotion strategy to address social media engagement gaps, ensuring consistent branding across all digital channels and leading to a more cohesive online presence.
- Increased speed and scalability for 29+ web applications by implementing efficient CI/CD processes, version control with Git, and automated testing using Selenium. This project identified performance bottlenecks, reducing deployment time by 18% and improving code quality through effective load testing, automated builds, and robust monitoring, leading to smoother production releases.

## Projects

**TreeHacks 2024 at Stanford University** https://devpost.com/software/prescriberx

- Developed an iPhone application to provide users with a health dashboard for monitoring vital organs, utilizing the Terra API, React Native, and a custom fine-tuned machine learning model. This addressed the challenge of helping users proactively manage their health by analyzing real-time biometric data and offering timely recommendations for doctor consultations.

**ATL AI Hackathon** https://devpost.com/software/pavlo_bondarenko_hello_world

- Amber Alert + TESLA = saved life!
- Implemented an Amber Alert system that leverages Tesla cars to broadcast suspect and vehicle details, including license plate information. Accomplished this by utilizing Python, machine learning models, and Tesla's API to tackle the problem of quickly detecting and locating suspects, enhancing response times and increasing public safety.

**UNThack 2023 (Fidelity Challenge Winner)** https://devpost.com/software/seethefuture

- Developed a predictive stock price model using a custom Large Language Model (LLM), Natural Language Processing (NLP), and advanced regression formulas to forecast market trends. Solved the issue of identifying profitable market strategies by accurately enhancing price forecasting using diverse data sources.

**NSBEHack 2023 (1st place and AI Challenge Winner)** https://devpost.com/software/charripm

- Engineered an AI-powered chatbot featuring customizable characters and advanced speech functionality using Python, NLP, and a speech synthesis API. This addressed the need for enhanced user engagement by providing dynamic responses, delivering valuable information in an interactive manner.

**HackTX 2023 Hackathon** https://devpost.com/software/e-commerce-app-b5lrem

- Created a t-shirt sizing software using OpenCV that accurately recommends sizes based on user measurements and store inventory dimensions. This solved the problem of inaccurate sizing by matching customers' body dimensions with available stock, optimizing fit accuracy, and reducing returns.

**Hoya Hacks 2024 Powered by Cloudforce** https://devpost.com/software/hopkins-university-ai-advisor

- Engineered an AI-driven admissions bot using Retrieval-Augmented Generation (RAG) models and Azure services to provide students with information on admissions requirements and deadlines. This project tackled the issue of efficiently handling common inquiries while delivering accurate program details to prospective students at Johns Hopkins University.

## Education

**University of North Texas at Denton** – Computer Science B.S. 2023-2024
**Odessa National Polytechnic University** – Computer Engineering B.S. 2011-2015

## Certifications

**AI-102** – Design and implement an Azure AI solution using Azure AI services, Azure AI Search, and Azure Open AI. 2023-2024
**DP-100** – Model training and deployment with Python and Azure Machine Learning. 2023-2024