

JAMES GASEK

New York, NY

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Education

Lehigh University

Bachelor of Science in Computer Science and Business, Data Science (GPA: 3.7)

Aug. 2020 – Dec. 2023

Bethlehem, PA

Advanced Math and Science Academy Charter School

High School

Aug. 2016 – May 2020

Marlborough, MA

Experience

Loupt Crowdfunding

July 2023 – Present

CTO & Co-Founder - Next.js, Postgres - loupt.co

New York, NY

- Technical Co-Founder of a Regulation Crowdfunding platform aimed to democratize access to investment opportunities, facilitating user engagement and investment with disruptive business model and social features.
- Designed, implemented, and deployed Node.js services and Next.js web application with PostgreSQL on ECS Fargate, and integrated with numerous AWS services. Configured DB, web app, and back-end scaling to minimize costs.
- Integrated third-party APIs (TransactAPI, Stripe, EasyCron, Mux) to handle investor KYC/AML when listing/making investments, process payments, and manage investor notifications and marketing.
- Defined sprint goals, measures of success, and led over a dozen partners and contractors over a year and a half. Worked closely with both technical and non-technical stakeholders, such as institutional investors.

Amazon Robotics

June 2023 – Aug. 2023

Software Engineer Intern - AWS, React

North Reading, MA

- Developed serverless React application for viewing results of systems testing as part of the QA Automation team.
- Modeled infrastructure and CI/CD using AWS Cloud Development Kit (CDK) in TypeScript to allow version-controlled infrastructure and rapid deployment and iteration.
- Implemented several AWS services, including API Gateway to route SigV4 signed requests, Python Lambdas to access test logs, S3 to store and organize test logs, Route 53 for DNS configuration, and IAM to restrict access to Quality Assurance Engineers and allow cross-account resource access.
- Completed project two weeks ahead of schedule and tailored the product more closely to end-user needs.

Structural Services

Dec. 2021 – May 2023

Software Engineer - C, C++

Bethlehem, PA

- Lead developer of device interaction software for an AI-powered assistive system for the construction industry.
- Created multithreaded C++ programs to read, encode, process, and display camera and other sensor data wirelessly.
- Developed device interaction libraries for computer vision cameras, an SBG Systems IMU/GPS, and Micro-Epsilon LiDAR, enhancing system compatibility and expanding operational capabilities across diverse hardware platforms.
- Researched GPS technology and wrote software enabling centimeter-accurate GPS tracking using real-time kinematic positioning (RTK) and a cellular connection to receive atmospheric corrections.
- Used CMake to optimize building process and manage C/C++ libraries.

Projects

CV Hazard Detection Model | Python, OpenCV, Keras, AWS SageMaker

Lehigh Capstone - Fall 2023

- Fine-tuned object detection model to dramatically increase performance of off-the-shelf object detection models for autonomous cyclist assistance device with a Bethlehem-based startup, Skillion.
- Used publicly available datasets, including KITTI, Norwegian University of Science and Technology, and manually collected data and labeled with in-house Python labeling program from Tesla Model S onboard camera.
- Achieved over 200x improvement in performance on nighttime headlight-facing captures, resulting in extreme performance increases.
- Implemented Luxonis DepthAI Python library for user-facing application.

Technical Skills - Most Experience First

Languages: C++, TypeScript/JavaScript, C, Java, Python, Go, HTML/CSS, Shell, Swift/SwiftUI, Rust, Lisp

Frameworks/Technologies: Next.js, React/React Native, PostgreSQL, MongoDB, Flutter, Node.js, AWS CDK, Docker

Developer Tools: Linux CLI, pgAdmin, Railway, AWS, Firebase, MongoDB Atlas, CMake, NPM/Yarn, Xcode