### **Samuel Kier**

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I am a recent CS graduate with professional experience leading **AI** and **full-stack development** projects. I have established skills in Node.js, React, Java, Python and AWS, with a focus on system efficiency. I have proven ability to deliver efficient production systems, collaborate in Agile teams, and continuously learn new tools.

#### **Work Experience**

### Heartland Agriculture Technology, at Heartland Farms, Wisconsin

11/12/24 to Present

AI Potato Sorting Project – **Software Engineer** 

- **Built** an AI defect detection system in a 3-person team, reducing shipment defects by **85%**, contributing to the preservation of a multimillion-dollar Frito-Lay contract.
- Implemented low-latency system communication (React UI, Python backend, SQL, Uvicorn API, MQTT, PLCs) achieving <400ms response times.
- **Developed** a **Linux-based wrapper** for 8 LUCID cameras across 4 distributed systems.
- Spearheaded development of React-based UI dashboards to process 50k+ datapoints/min and display real-time system alarms for quick response times and crucial business decisions.
- Authored a GitWiki with version documentation along with a 10-page SOP for on-boarding.
- Integrated Git documentation with Agile Scrum boards to streamline development.

# Keystone Innovation Labs LLC, West Pittston, PA

12/30/21 to 8/28/24

Intern/Project lead - Full Stack Android Developer

- **Developed** a full-stack Android app for a dynamic and automated steel target system, utilizing **Java** for UI, **SQL** databases for data management, and **.NET** for Bluetooth connectivity and web integration.
- Led fabrication by assembling steel prototypes, integrating circuit boards and optical interrupts, and writing C code to test target cycling and Bluetooth functionality (cut cycle times by 45%).
- Installed and configured technical equipment including an AccTek 6000w Fiber Laser Metal Cutting Machine, diagnosed and resolved diverse circuitry issues, upgraded and installed 25+ workstations, and contributed to user testing and project management for an accounting application.

#### **Leadership and Activities**

University of Wisconsin - Madison Data Science Club - Head of Social Media - Designed graphics and merchandise, organized events for 700+ members, created and hosted Data Science CTF competitions boosting club engagement and technical skills of participating members.

**Student Tutoring Organization** – Led workshops and 1-on-1 sessions, mastering software tools and refining tech instruction skills. Gained experience in teaching Python, C++, JavaScript, Adobe Creative Cloud Suite.

Sayoc Tactical Group – Instructed Sayoc Kali martial arts, earning Battang Instructor, Apprentice Level III. Projects

LectureSphere (Kotlin, OpenAI APIs, Firebase): Built a collaborative note-taking app with AI summarization, tested in classroom environments with 80% accuracy in identifying key lecture points.

MLB Foreign Substance Detector (Python, Pandas, Matplotlib): Analyzed pitcher stats to detect abnormal spin rates, successfully flagging 3 documented cheating cases.

LLM Applications (Python, OpenAI APIs): FindMyNumber, Interrogatory Q&A game, Personal Notetaker. Education

### **University of Wisconsin - Madison**

May 2025

Bachelors of Science in Computer Science

Relevant Coursework: Algorithms, Theory of Programming Languages, Databases, Advanced Graphics.

## **Skills**

Core Technical Skills – JavaScript, Java, Python, Kotlin, C/C++, SQL, Node.js, React, HTML, CSS, REST APIs, Android App Development, Agile, Git, Linux (Ubuntu, Kali, Debian), Virtual Machines.

**Actively Learning**: Machine Learning, LLMs, Haskell, Chart.js, gRPC, .NET, Docker, Embedded Systems, AWS Amplify, AWS Lambda, S3, API Gateways.