William Kauffman

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EDUCATION

Purdue University | Presidential Scholarship | Purdue Rising Boilermaker Award   **Expected May 2025**
Bachelor of Science: Computer Engineering | Minor: Mathematics, Management   **GPA: 3.90**
- Relevant Courses: Data Structures and Algorithms, Advanced C, Python for Data Science, Discrete Math, Computer Vision, Microprocessor Systems, Digital System Design, Linear Circuits I/II, O-O Programming

SKILLS

- **Languages:** C, Python, JavaScript, Java, Matlab
- **Tools:** VSCode, Git, AWS, Figma, React, PyTorch, Docker, MongoDB, Vim, GDB, FPGA, Verilog

PROFESSIONAL EXPERIENCE

Boeing – *Project Management Intern | Seattle, WA*   **June 2023 – August 2023**
- Spearheaded cross-functional teams of engineers and analysts to execute on over $750,000 of customer requests
- Familiarized with simulation executive software, I/O software, and hardware used in airplane systems
- Conducted Boeing 777 and 787 durability virtual test flights by modeling a variety of environments with Python
- Delivered capstone project outlining full-scale EV and charging station implementation at Boeing

Nester – *Software Development Intern | Wilmington, DE*   **May 2022 – September 2022**
- Developed HVAC API integration for improved price and lifetime predictions of home systems
- Created housing report pipeline which helped improve UX experience for new users
- Enhanced HVAC recommendations based on location and usage, resulting in refined sustainability report

HP Tech Ventures – *Corporate VC & Business Analytics Extern*   **January 2022 – April 2022**
- Profiled 40+ startup companies through research in funding, industry data, team, and business models
- Selected as top 2% of cohort to present researched start-up to HP Tech Ventures partner

RESEARCH / COURSE PROJECTS

Purdue University – *Researcher in Prof. Shreyas Sundaram's Research Group*   **December 2023 – Present**
- Conducting evaluation of GNN and MAGAT methodologies in decentralized multi-agent path planning
- Performing research in differential game theory, focusing on the strategic interactions between pursuit and evasion

Digital Lock - *ECE 27000 | Digital System Design*   **October 2023 – December 2023**
- Crafted mechanism through Register Transfer Level (RTL) design techniques
- Adjusted lock dynamically based on user input, utilizing shift registers and flip-flops within SystemVerilog
- Utilized combinational logic blocks to compare bit strings of user inputs against the pre-set lock combination

INDIVIDUAL PROJECTS

Banking AI Agent | Purdue AI Catapault Hackathon – *Sonder | Backend Developer*   **March 2024**
- Constructed an agentic model by integrating Langchain for database chaining and precise query responses, displayed through real-time SQL query and procedural step visualization to the user on the frontend
- Selected as winner of Purdue Catapault's AI Hackathon out of over 30 teams

RAG Pipeline Chatbot – *Hawken | Software Developer*   **January 2024**
- Created Augmented Generation (RAG) pipeline using Puppeteer for web crawling and Pinecone for vector database integration, automating the collection and enrichment of product data for a building technologies shop
- Developed and deployed a user-friendly NextJS chatbot UI, enabling single-line script integration into client websites

Invici, Inc – *Founder, Full Stack Engineer, Sales Lead | Lewes, DE*   **April 2023 – September 2023**
- Created Shopify React app through rapidly iteration of features from user interviews, enabling merchants to upload invoices and generate product listings, resulting in an average weekly time saving of 8 hours
- Awarded Shurz Trailblazer $10,000 award in Purdue Innovates Startup Expo out of over 40 startups
- Collaborated on invoice processing pipeline utilizing PyTorch based DeTr networks and OCR models

ACTIVITIES

Purdue AI/Machine Learning Club – *Algo Trading Competition Team Leader*   **August 2023 – Present**
- Recruited out of over 80 candidates to compete in hackathons, trading, and math competitions
- Lead team of over 20 students in semester long projects, seminars, and competitions

PurdueTHINK – *Consultant | Technical Project Manager*   **September 2021 – September 2023**
- Led as project manager for Socrash.AI, driving user base growth by 50% through iteration on user feedback
- Consulted for Purdue Auxiliary Service, leveraging Matlab to eliminate the bottom 20% of purchasing users, yielding a project savings of $1.5 in P-Card spending