Luke Puchalla

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SKILLS

Languages: C++, Python, Shell, Bash (Proficient); C, C#, Java, Javascript/Typescript, MATLAB, VHDL (Intermediate)
Skills: Programming in a Linux environment, Git, CI/CD
Software: Docker, Kafka, Kibana/Elasticsearch, Kubernetes, Helm, GarageBand
Certifications: Network+ (acquired October 2025) • **Languages**: Spanish (Intermediate)

WORK EXPERIENCE

AI Implementation Consultant, **Mindful Drops,** Austin, TX *August 2026 – Present*

- Built a ChatGPT-based agent that drafts on-brand email campaigns; used to produce a Black Friday campaign
- Configured a custom MCP client to connect the agent to Klaviyo's MCP server, as no native integration existed
- Added AI agents to Slack so the whole team could hand off tasks in plain language
- Analyzed subscription cancellation data with Claude and found driving reason customers cancel
    - Designed a "reduce frequency" option for the cancellation flow to retain subscribers

Software Engineer, **Johns Hopkins University Applied Physics Laboratory,** Laurel, MD *July 2020 – Present*

Project 1: Docker-based data streaming service *January 2022 – Present*

- Developed, tested and deployed software that streams critical real-time data to the customer via Kafka
    - Delivered seven software releases over four years that continually support high-priority missions
    - Improved the execution time of one particular high-value data service by six-fold
    - Rapidly tested and deployed a new data summarizer capability at the customer's urgent request
        - Enabled the customer to survey a new class of high-value targets
- Collaborated with developers to transition delivery of our software to Kubernetes via Helm charts
- Directed meetings, tasking, and release schedules to continue to deliver customer-requested features
- Enhanced a data replay tool, enabling our team to rapidly test methods of parsing high-value target payloads
- Overhauled a repository to distribute deliverable software to sister project teams with custom requirements
    - Collaborated with project teams to rapidly deploy our capability to their customers
- Provided operational expertise to our team on-site when problems or questions arose
- Onboarded and managed the tasking for a summer intern

Project 2: Ground software for controlling remote RF receiver systems *July 2020 – Present*

- Transitioned main C++ repo from Microsoft Visual Studio to CMake
- Designed and implemented a data filter controller in C++ to allow the customer to avoid flooding their downlink
- Developed a Python utility that allows the user to create simple WiFi beacon frames based on a few parameters
    - Enables the customer greater ability to execute successful cyber missions involving WiFi beacons

EDUCATION

Johns Hopkins University, School of Engineering
Master of Science: Electrical/Computer Engineering (in progress) *January 2022 – Present*
Cornell University, College of Engineering, Ithaca, NY
Bachelor of Science: Electrical/Computer Engineering • **Minor:** Computer Science *May 2020*

CAMPUS INVOLVEMENT & EXTRACURRICULARS

Chapter Officer, **Phi Gamma Delta (FIJI)**, Cornell University *April 2017 – April 2018*

- Led the fraternity as member of a five-person board; made financial & other critical decisions for the house
- Awarded IFC Outstanding Chapter and Outstanding Commitment to Leadership during tenure

Treasurer, Co-captain, **Club Lacrosse Team,** Cornell University *August 2019 – May 2020*

- Member of four-person executive board; scheduled and led practices; coordinated games with conference teams
- Managed budget for a 40-person team; collected dues; allocated university-awarded funding for team expenses

AWARDS & HONORS

Armed Forces Communications and Electronics Association, Central Maryland Chapter: $10k Scholarship Winner