Mitchell Williams ~ Cover Letter

Dear Hiring Manager,

thank you for considering me and taking time to read this! With a career spanning corporate + entrepreneurial experience in cybersecurity, quantitative finance, supercomputing physics, open source, and applied data science, I bring a combination of deep technical expertise and people centered leadership that flourishes in stressful environments reputed for their complexity, haste, and business limitations/regulatory constraints.

As the Founder + Lead Developer of a cybersecurity startup focusing on productizing patent pending cryptographic innovations, I am responsible for not just the technical backbone of the company, but the human side of the business as well. On the technical front this has included architecting distributed systems from scratch, designing databases and APIs, implementing network & socket communication frameworks, and building robust production applications using C++, Python, Fortran, SQL, and ZeroMQ. On the human side, this role also entails leading investor meetings, sector networking, patent and legal work, early hiring, and product defining; all of which culminates to translating highly technical concepts into understandable + compelling narratives for nontechnical stakeholders and potential partners to share my vision.

Prior to that, I enjoy 4 years at Charles Schwab where I served 1 year within Risk Oversight and then 3 years as Treasury Manager of AI & Data Science. While Treasury Manager of AI & Data Science I led projects and small teams in the development of production level automations (saving thousands of human hours across the firm), bespoke computational infrastructure to forecast macro trends, rapid prototype analysis packages to explore client behavior, and mission critical modeling for trillion dollar balance sheet flows; these efforts often put me in positions to help leadership understand business data & technical pain points, inform executive decision making on both the balance sheet & on latent technical potentials, and share my impactful data insights on both financials & operational speed to global shareholder meetings. While evaluating models through risk vectors/impacts in my 1 year in Risk Oversight, I collaborated with audit & governance groups, internal stakeholders, external consultants, vendors, and Federal Reserve contacts; this role not only required technical fluency in math, computer science, and regulation, but also interpersonal skills to thoughtfully share issues, build group consensuses without negative conflict, and drive/support remediation efforts, all without disrupting mission critical operations or hampering strategic relationships between individuals/teams/divisions.

Before finance and cybersecurity, my post- & intra-academic life orbited around computational physics, working on some of the world's largest supercomputers to both lead and contribute to large scale computational research campaigns. As a Visiting Researcher at KAUST and a Student Researcher at Ludwig Maximilian University, I designed & executed models that required millions of CPU hours resulting in double digit terabyte outputs, directed international collaborations, uncovered critical issues in legacy scientific code, and authored improvement plans to enhance model & system documentation, automation, and reliability. Such experiences honed my ability to coordinate across cultures + disciplines, communicate clearly with domain experts and engineers, and maintain stark discipline around verifiability & reproducibility.

Across all roles I have maintained a strong individual contributor skillset, developing algorithms and tools in Python, C++, SQL, and related technologies, by working with distributed systems, containers, microservices, and cloud platforms; while increasingly focusing on project management, mentoring, cross-functional collaboration, and stakeholder communication. I have open sourced my trading algorithms that are used by thousands of traders, built software packages like EasyGCPz to make GCP accessible to folks without SQL expertise, written cryptography patents to revolutionize cybersecurity, and presented/published my work to international audiences/journals. These efforts reflect not only technical depth but an earnest commitment to making complex systems not only engaging & usable, but also intuitively understandable to peers, leadership, mentees, and stakeholders. I am motivated by roles where technical excellence, relationships, and trust & engagement are nonnegotiable; and where communication across teams, leadership, and external regulators/clients is critical to success. I look forward to connecting and am happy to further discuss how my experiences and skillsets in entrepreneurship, cryptography, quantitative modeling, open source, and supercomputing, may be a good fit in your company and open role!

All the best,

Mitchell Williams