Sofia Poulsen

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EDUCATION

University of Colorado at Boulder 2023-2027 **BS Computer Science**
GPA: 3.84 **College level:** Junior

WORK EXPERIENCE

Xcel Energy — Robotic Process Automation Intern May 2024-December 2025 Denver, Colorado

- Maintained a Python SAP scripting automation app with over 500 internal users and 31 different automation features.
- Communicated daily with end-users to investigate bugs, understand requirements for new features, and to conduct production environment testing.
- Became the app's main developer after independently picking up and understanding a former employee's code with little documentation.
- Developed over the full stack, with the PySide2 frontend GUI, Python SAP scripting code, and the SQL backend tables. Used Git for version control.

Starfish Project, Beijing — Volunteer Adobe Illustrator Teacher Summer 2022 Beijing, China

- Taught Adobe Illustrator and basic design principles once a week for two months, in Mandarin Chinese.
- Developed a design curriculum, covering both more abstract concepts like visual hierarchy and color theory along with specific tools like masks and Bezier curves.
- Facilitated a warm classroom environment, encouraging students to collaborate and make mistakes.

PROJECTS

CU Hyperloop Club — Tunnel Boring Machine's Graphical User Interface 2023-2024 Boulder, Colorado

- Collaborated with a teammate using GitHub and PyQT to build a GUI which the team used to view the machine's status and manually control the machine.
- Integrated the UI with all sensors and all components' state machines (tunnel support, propulsion, etc.), received machine sensor data through ROS.
- Communicated with teammates on different sub-teams to understand the requirements for the UI.
- Won the Innovation Award in the 2024 'Not-A-Boring Competition', with our 2-ton mini tunnel boring machine.
- Made rapid, on-demand additions and bug fixes throughout the week-long competition, prepping the GUI for the final dig.

Lenticular Image Processing App 2022-2023 Beijing, China

- Created a Java desktop app that processes lenticular images, making a usually tedious and technically difficult art project more accessible.
- Planned the app using various diagrams (UML, structure, data flow) and pseudo-code to make implementation more efficient.
- Communicated with a client to gain design requirements for the app, along with feedback on wireframe diagrams and prototypes.
- Project scored a 7/7 on the IB Computer Science HL internal assessment.
- Gave a 90-minute presentation to the school's art department on lenticular image processing, where each teacher created their own lenticular print.

TECHNICAL SKILLS

- **Languages:** Java, Python, C/C++, SQL, JavaScript, CSS, HTML
- **CS Classes:** Software Development, Database Systems, Intro to Data Science, Operating Systems, Data Structures
- **CS Tools:** Git, GitHub & GitLab, GNU Debugger, PyCharm Debugger, Bash, Microsoft SQL server
- **UI:** PyQt, PySide 2, Java Swing
- **Other Tools:** Adobe Photoshop, Adobe Illustrator, Adobe Animate, Jira Kanban Boards, SAP, Microsoft Office Suite