Joshua Rogers

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EDUCATION

Utah Tech University St. George, Utah

Bachelor of Science in Computer Science | Minor in Information Technology *Expected Dec 2027*
Major GPA: 3.91 | Cumulative GPA: 3.71

Utah Tech University St. George, Utah

Associate Degree in Computer Programming. *May 2026*

SKILLS

Data and ML: PyTorch, pandas, NumPy, Matplotlib, CNNs, preprocessing, model evaluation

Languages: Python, C++, C, Rust, JavaScript, SQL

Web and Tools: React, Flask, HTML/CSS, MySQL/MariaDB, WebAssembly, Linux, Git, Bash, Make

EXPERIENCE

Undergraduate Researcher, Exoplanet Detection Nov 2025 – Present

Utah Tech University *St. George, Utah*

- Develop a Python pipeline to preprocess and label stellar light curves; train and evaluate a one-dimensional CNN for exoplanet transit classification.
- Apply the model to uncertain candidates and review false positives and negatives by TIC ID using light-curve visualizations to guide refinement.

Teaching Assistant and Supplemental Instruction Leader Jan 2026 – Present

Utah Tech University *St. George, Utah*

- Lead supplemental mathematics instruction and provide individual and small-group support, adapting explanations and problem-solving strategies to student needs.
- Coordinate with faculty to align review materials and sessions with Math 0980 course objectives.

PROJECTS

Jetan.org

React, Flask, Python, Game AI

- Built a web platform for a chess variant supporting human and AI play, agent-versus-agent matches, user accounts, and ratings.
- Implemented post-game analysis and a sandboxed validation workflow for uploaded agents.

Plundr.org

Flask, JavaScript, MySQL/MariaDB

- Developed a social platform with community feeds, posts and image uploads, replies, profiles, following, search, and moderation.

CriticalFunction.org

JavaScript, HTML/CSS

- Built a classroom math application with connected instructor, team, and projector views; added room-based play, instructor-led grading, and PDF problem projection.

Fractal Lab

C++, WebAssembly, Web Workers

- Adapted a C++ image-processing application for the browser, moving fractal rendering into a Web Worker and supporting local image operations and PNG/PPM export.