

## Peter Johnstone

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github.com/Peter-Johnstone | Portfolio

### Education

*B.E., Computer Science & Engineering, Bucknell University, PA     Aug 2022 – May 2026 (Expected)*

Honors: Dean's List | Study Abroad: Nanzan University (Spring 2025)

### Experience

*Lead ICPC Rep & Coding Seminar Organizer at Bucknell University, PA     Sep 2025 – Present*

- Faculty-appointed lead for Bucknell's ICPC team
- Run weekly competitive coding seminars emphasizing DS&A + clean code (C++/Python).

*Co-Founder & CTO at Eigofy, PA     Aug – Dec 2024*

- Shipped a Manifest V3 Chrome extension (EN→JA) with AI translation and spaced-repetition; 100+ installs in month 1, grant-funded & investor-backed, presented at TechCrunch Disrupt SF.
- Frontend in JavaScript/HTML/CSS; Webpack bundling and CI/CD for automated builds/deployment.
- Backend on GCP/Firebase (Auth, Firestore NoSQL), Stripe for payment, LLM APIs; LLM-based data augmentation pipeline for bilingual lexicon + analytics. [[Landing Page](#)] [[Extension](#)]

*Software Engineer Intern at Visual Alpha, Tokyo     Jun – Aug 2024*

- Designed and built an internal data-update dashboard (Python/Flet frontend + SQL/REST backend) used to automate recurring updates.
- Implemented CRUD workflow and REST integrations to reduce manual spreadsheet syncing.
- Contributed 45 PRs with reviews/docs; shipped to sprint deadlines.

*Software Tester Intern at Habitto, Tokyo     Jun – Aug 2023*

- Worked cross-functionally with PM, design, and Android engineers to improve reliability across releases by building and maintaining automated login/signup tests (Appium, Java) .

### Selected Projects

*Magnus Carblunder (~2800 Rated Rust Chess Engine) — Open-source     Jul – Sep 2025*

- Highly optimized Rust chess engine using bitboards, alpha-beta + iterative deepening, transposition table (Zobrist), move ordering, quiescence.
- Profiled with Flamegraph and perft-validated; achieved ~2800 Elo vs chess.com bots (levels 1–8) through calibrated self-play testing. [[GitHub](#)]

*OCR Neural Network (PyTorch-style, Pure Python) — Open-source     May – Jul 2025*

- Built a character recognition model from scratch in pure Python, reproducing the core functionality of PyTorch/TensorFlow (manual backpropagation, activation layers, gradient descent). [[GitHub](#)]

### Technical Skills

Programming Languages: JavaScript, Python, SQL, Rust, C++, C#, Java, Dart, HTML/CSS

Platforms/Tools: REST APIs; Firebase (Auth, Firestore); Google Cloud (Cloud Run/Functions); Stripe; Git/GitHub; Jira; Chrome Extensions API; Flet, Webpack, Vue (portfolio)

**Languages:** English (Native); Japanese (Fluent, JLPT N1); German (Fluent, Heritage Speaker)