

Software Engineer Software Engineer Software Engineer - Altair Engineering Troy, MI Independent & quality-oriented software engineer /w > 12 years programming experience. Looking for a long-term position with the power to make architectural decisions & write maintainable, performant code.

Work Experience Software Engineer Altair Engineering 2018 to Present - Part of team developing Inspire Motion Mutli-Body Dynamics plugin for Altair Inspire, a simulation-focused CAD tool.

- Advised technical management on plugin loading architecture, massively speeding up program startup time for major client.
- Communicated with recently acquired fluid dynamics product team to resolve bugs with their product's data input format; advised them to use spherical instead of linear interpolation to interpolate part rotations.

Independent Software Developer Independent Projects 2007 to Present INJECTION 2014 Ongoing Skills Used: Python, Cython, RSA, Amazon & Google cloud hosting

- Video game written in three days for a game making competition in 2014 that expanded in to a larger project.
- Used Cython, a compiled variant of Python, for performance-critical features.
- Due to the project s need to be publicly available while in development, automatic update infrastructure had to be developed, currently running on a Google Cloud Services instance, migrated from Amazon EC2. Uses RSA public-key signatures to verify authenticity of update files.

PDMG 2014 Skills used: Integrating in to existing codebase in unfamiliar language

- Lua plugin for physics sandbox game, was asked to maintain it by original developer
- Was broken by an API change, fixed several bugs and began adding features within days despite no knowledge of Lua or the API

Tree Tally 2013 Skills used: Business systems design

- Developed UI & backend for data collection tool for forestry business

Volunteer Opportunity Portal 2013 Skills used: Backend web development, cryptography, SQL database

- Website backend developed for local charitable organization
- Handled securely storing hashed passwords,
- Project was cancelled shortly in to development of database backend

Transcendence Extensions 2007-2013 Skills used: XML, Lisp, working with poorly-documented APIs

- Made several plugins for game, scripted in LISP with data and scripts stored in XML files.

Had to reverse-engineer existing scripts to learn undocumented API.

Education High school or equivalent Skills Git, Python (6 years), Linux Links <https://gitlab.com/toastengineer>

Name: Amanda Lyons

Email: chavezelizabeth@example.org

Phone: 312-968-2440