

VIOLET CHAN

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OBJECTIVE:

I seek a collaborative role focused on building productivity and quality-of-life improvement tools where my skills and insight can contribute to and enable long product life through clear design conventions.

SKILLS:

- JAVASCRIPT
- PYTHON
- DIALOG APL
- C++
- HTML
- BLENDER
- LYX (Latex wrapper)
- MARKDOWN
- ADOBE ILLUSTRATOR
- ADOBE PHOTOSHOP
- MIPS ASSEMBLY
- FIGMA

EDUCATION:

Reed College, Bachelor of Arts, Faculty of Computer Science

May 2023

SENIOR THESIS:

Session Typing and Checking using State Minimization

1. Studied concurrent models of communication and how session typing can provide assurances of correctness for concurrent programs
2. Designed a language to make writing example programs more transparent and easier to examine

RELEVANT COURSEWORK:

- Algorithms and Data Structures
- Computability and Complexity
- Fundamentals of Programming Languages
- Introduction to Compilers
- Computer Systems
- Discrete Mathematics
- Linear Algebra Vector Calculus
- Computer Graphics

ADDITIONAL COURSEWORK

- Usability Engineering (Oregon State University)

EXPERIENCE:

Tutor: Reed College

Aug 2019–Feb 2023

- Improved student outcomes by providing supplementary tutoring in areas of expertise mathematical analysis and Python
- Taught course material and introduced students to tools and techniques to help them study and learn independently

Teacher: Python Crash Course, Reed College

Nov 2021–Nov 2021

- Discovered opportunity to help Python students by supplementing their course with key insights into the language and into the structure of code
- Initiated and led the design of a practical and pragmatic weekly Python crash course as an introduction to the Python tooling ecosystem composed of lectures and exercises that journeyed from basic structures through to more advanced syntax and idioms
- Created a demonstration tool to provide intuition for basic Python keywords and structures, i.e., loops and how they can accomplish the same task in different ways. The goal of the design was to build a mental model of Python as a language to embed learning for easier recall

COMMUNITY ENGAGEMENT:

Reed College Scriptorium

Sep 2018–Nov 2023

- Employed calligraphy skills to create sign work for marketing events and speakers
- Designed a celebratory bookmark for the inauguration of the college president that continues to be used on the Reed website

Int'l Student Advisory Board Member: Reed College

Sep 2018–Nov 2021

- Drove diversity and inclusive objectives through planning a calendar of events that focused on the international student community such as Lunar New Year's celebrations and a regular cadence of cultural exchange initiatives
- Sub-committee member for Lunar New Years Banquet, Karaoke Events
- Responsible for event equipment procurement
- Led creative design for marketing and DIY events

Nuclear Reactor Trainee: Reed Research Reactor

Sep 2018–Nov 2018

- Learned safety and standard operating procedures
- Brought the reactor to criticality and then back off-line

INTERESTS:

- Human interaction with the designed world: Studying human-computer interaction as well as the broader world of design as described by Naohiro Matsumura
- Programmable materials: Exploring how tools, such as printing, can program the flow of stress through a material to elicit desired behaviour
- Pedagogy and learning: Studying how to efficiently map new knowledge bases
- Computer Language design: Investigating how some programming languages may be better suited to certain problems or how the tools we use decode or obfuscate solutions
- Graphic design: Analyzing how complex information can be quickly and clearly communicated through clever use of reference, convention, and composition
- Linguistics: Researching languages as a diverse set of complex rule systems provides fun revelations and plenty of opportunities to apply knowledge