Arrian Chi

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Technical Skills & Interests

Operating Systems: Linux, Windows
Languages: C/C++, C#, Javascript, HTML, CSS, Python, Java, RISC-V, Matlab
Tools/Libraries: Unity, VSCode, Github, WEBGL, FMOD, Phaser, Google Sheets, LibreOffice, vim, flex/bison. Antlr4,
Development Skills: Scrum, Prototyping, Playtesting, Optimization, Maintenance
Soft Skills: Collaboration, Communication, Teamwork, Conflict Resolution, Critical Thinking, Empathetic
Interests: Game Development, Procedural Content Generation, Computer Graphics, Compilers

Education

UNIVERSITY OF CALIFORNIA – SANTA CRUZ Santa Cruz, CA
Computer Science: Game Design B.S. GPA: 4.0 In Progress – Jun. 2023

Relevant Coursework: Game Design/Development Experience, Compiler Design, Computer Graphics, Generative Design, Data Structures and Algorithms, Computer Architecture
Awards: Dean's Honor List: Fall 2021 – Spring 2022

Experience

UC SANTA CRUZ Santa Cruz, CA
Grader (4 hours/week) Sept. 2022 – Dec. 2022

- Grading work of 24 students in a graduate Compiler Design course while auditing
- Manually graded exams and wrote scripts to review implementation accuracy on assignments

UC SANTA CRUZ Santa Cruz, CA
Tutor / Grader (7 hours/week) Mar. 2022 – Jun. 2022

- Tutored/graded for an undergrad class of 60 in Compiler Design
- Reinforced concepts such as lexical analysis, syntax analysis, abstract syntax trees, type inference, semantic analysis, basic blocks, intermediate code generation etc. during weekly office hours
- Graded homework and exams based off accuracy and rigorous code review

MATHNASIUM El Dorado Hills, CA
Instructor (8 hours/week) Sept. 2019 – Apr. 2020

- Educated and assisted 40+ K-12 students per day on math homework on concepts ranging from algebra to calculus
- Coordinated with other instructors to maintain balance between correcting homework and tutoring

Relevant Projects

Compiler for Meow language Jun. 2022 – Aug. 2022

- Improved the OC language compiler by fixing implementation/optimization issues
- Optimized type-checking and intermediate code generation
- Prototyped an interpreter for this language in Unity
- Planning on using in a future programming game

Depresso Jun. 2022 – Jul. 2022

- Developed (with 2 game design students) a procedurally generated 2d coffee-themed maze using p5.js
- Fabricated a tool to streamline uniforms of NPC's in games

Miao's Mission Cat Food Frenzy Mar. 2022 – Jun. 2022

- Collaborated with 2 game design students to develop a web-based puzzle platformer game using Phaser
- Designed intuitive level design system to streamline game production and compartmentalize member's work
- Planning on updating regularly

Compiler for OC language Jan. 2022 – Mar. 2022

- Designed and implemented a compiler for a subset of the C programming language
- Utilized flex/bison to generate lexers/parsers. Handled syntactic errors accordingly.
- Integrated type checking and symbol tables to ensure semantic validity