

Aidan Barbieux

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San Luis Obispo, CA

github.com/abarbieux

barbieux.dev

EDUCATION

California Polytechnic State University, San Luis Obispo, CA

Expected Graduation: June 2022

➤ **BS: Computer Science, 3.58 GPA**

➤ **Relevant Coursework:**

Project Based Design (Java)

Discrete Structures

Computer Architecture (C++, Assembly)

Data Structures and Algorithms (Python)

Calculus II, III, Linear Analysis I

Design and Analysis of Algorithms

Computer Organization (Assembly, C)

Systems Programming (C)

Technical Writing

EXPERIENCE and PROJECTS

Portfolio and Personal Website – ReactJS, barbieux.dev ~6K lines of code

April 2020-Present

- Displays a mobile friendly web interface via **ReactJS** and **Bootstrap**, organizing information about and for me
- Hosts a **REST API** via **NodeJS**, **Express**, **PostgreSQL**, and **NGINX** to manage and send emails and notes
- Dynamically generates menus, image galleries, and other content from **JSON** files and directories

ARM Thumb Processor Simulator – C++, For CSC 315 ~2K lines of code

March-June 2020

- Simulated the Thumb Instruction Set of the **ARMv7** (Raspberry PI) processor using **C++**
- Gathered branch and cache statistics to determine optimal cache sizes and static branch predictions

GPX 3D Visualizer and Mandelbrot/Julia Set Explorer – Java ~2K lines of code

June 2019-January 2020

- Created a 3D visualizer for GPX files using **OpenGL** and the **Processing API** to display cycling race and event routes
- Implemented and optimized a generator and renderer for Fractals using the **Processing API** and **ImageMagick**
- Designed user controls to generate and interact with both projects in real time

Corporate and Academic Hackathon – Awardee, Santa Barbara, CA ~2.5K lines of code

September 2018

- Led an active group in a 12hr hackathon and subsequent project
- Developed a biometric password system identifying users with ~80% accuracy based on typing patterns
- Managed a **Java** front and back end utilizing the **Processing API** and **Git/GitHub**
- Awarded for the best use of data and algorithms by corporate sponsors/mentors

UCSB IGERT Network Science – Research Intern, Santa Barbara, CA ~2K lines of code

Summer 2017

- Studied general **network science** and **graph theory** under by two Computer Science PhD students
- Visualized data from Kaggle of over 1,500 plane crashes with cluster graphs via **Python** in **Jupyter Notebook**
- Worked full time for six weeks heading my three-person team, using **Git/GitHub** for program management

WORK EXPERIENCE

Ceramics Crafter and Seller – Proprietor, San Luis Obispo, CA

May 2019-Present

- Manages advertisement and customer interaction through social media and craft events
- Designs and builds a large range of ceramic items from raw clay to glazed piece
- Sells pieces online and at craft sales throughout California

VeloPro Cyclery – Sales Associate, Santa Barbara, CA

Summer 2019-Present

- Services and sells bicycles, generated a total profit of over \$45,000 for the holiday season
- Resolves customer service issues including warranty claims and special orders
- Trains new employees and customers in bike service and maintenance

OTHER EXPERIENCE

Unicycling and Juggling Club – Vice President, San Luis Obispo, CA

December 2018-Present

- Reserves spaces and organize events around San Luis Obispo to teach and practice
- Recruits and motivates new members to be active in the juggling and unicycling community
- Practices and performs routines with groups of 3-10 people for parades and events such as TedX

RELEVANT SKILLS

PROGRAMS			LANGUAGES			OTHER SKILLS	
VSCode	Vim	Git + GitHub	ReactJS	JS/TS	Python	Adobe Illustrator	UX Design
Unix(+WSL)	NGINX	SSH	Java	C/C++	HTML/CSS	REST APIs	French