PUTHYPOR (POR) SENGKEO

(425)-516-8754 - psa171@sfu.ca - https://puthyporsk.github.io/puthyporsk/ - Burnaby, BC

SKILLS

- Programming Languages: React, Redux, JavaScript, HTML/CSS, PHP, GO, SQL, Laravel, Typescript, Python, C/C++, C#.
- Tools: JetBrains IDEs, Postman, JIRA, MySQL, MongoDB, AWS, Elastic Beanstalk, DevOps, Power BI, and Flutter.

TECHNICAL EXPERIENCE

Teaching Assistant – Discrete Mathematics (MACM101)

Simon Fraser University, Burnaby, BC, CA — January – Present

- Assisted in teaching Discrete Mathematics, covering topics such as logic, set theory, combinatorics, and proofs.
- Led weekly tutorials sessions to reinforce key concepts, solve problems, and support students' understanding.
- Designed and graded assignments, quizzes, and exams in collaboration with the course instructor.
- Provided one-on-one and group tutoring to help students grasp complex material and prepare for exams.
- Facilitated an inclusive and supportive learning environment by encouraging student participation and engagement.

Software Engineer

HiLine Engineering & Fabrication, Inc., Richland, WA, USA — May 2021 – November 2023

- Utilized React 18 to develop the front-end components, oversee user interactions, and integrated Redux for orchestrating API calls from the user interface to the backend infrastructure.
- Employed the Laravel framework in conjunction with a MySQL database, PHP, and Elastic Search to effectively handle database transactions, storage, reception, execution of API calls, and all server-side connections.
- Containerized images for production using Docker, Go and maintained those containers using Kubernetes.
- Collaborated with the team to develop and bring to market a scheduler software, a time tracker, and an HVAC kiosk, collectively contributing to a revenue generation of more than $450,000.
- Used JIRA to document and organize tasks, arrange weekly AGILE sprints, maintain reports on Knowledge Base.

Technical Assistant III

Crimson Service Desk at Washington State University, Pullman, WA, USA — August 2019 – May 2021

- Addressed helpdesk tickets and inquiries, including problems related to student and staff accounts, Wi-Fi connectivity, driver malfunctions, and operating system errors.
- Provided consultation to customers on practices for safeguarding their digital security, protection against malicious software, recognizing scams and phishing emails, and minimizing exposure to computer viruses.
- Resolved over 300 JIRA tickets, consistently earning an outstanding average customer feedback rating of 4.98/5 stars during my employment.

EDUCATION

Master of Professional Computer Science in Visual Computing

Simon Fraser University (SFU), Burnaby, BC, Canada — September 2024 - Present

- Relevant Courses: Visual Computing II, Machine Learning, Distributed and Cloud Systems

Bachelor of Science in Computer Science

Washington State University (WSU), Pullman, WA, USA — August 2018 - May 2021

- Major: Computer Science, Minor: Mathematics
- GPA: 3.68/4.00 (Degree Honors: Cum Laude, Term Honors: President's Honors Roll – Every Semester)
- Relevant Courses: Software Engineering Principles, Web and Mobile App Development, Machine Learning

TECHNICAL PROJECTS

SARSAM: SAR Water Segmentation, Improving Segmentation Accuracy on Noisy SAR Satellite Images

Simon Fraser University (SFU), Burnaby, BC, Canada — January - April 2025

- Integrated deep-despeckling techniques to denoise SAR images and improve model input quality.
- Engineered a point proposal heuristic leveraging low-intensity/gradient regions to generate water-like prompts.
- Fine-tuned the SAM2 segmentation model using denoised images and heuristic-based positive point prompts.
- Employed a hybrid loss function (Dice Loss, Focal Loss, IoU Loss) for robust training on a private labeled SAR dataset.
- Improved segmentation accuracy over the baseline model (SAM2), especially in narrow water body detection.

Architect: Architectural Style Recognition and Feature Detection

Simon Fraser University (SFU), Burnaby, BC, Canada — September – December 2024

- Developing an application to recognize architectural styles of buildings across the world with a self-curated, inclusive dataset representing diverse global cultures and time periods.
- Implementing CNN-based object detection techniques, using **PyTorch**, **ResNet**, and **FastAI**, to accurately identify architectural features, improving classification even with partial or obscured building images.
- Expanding the dataset and refining feature detection models to enhance architectural style recognition accuracy.

Lead Software Engineer

Cherrywood Learning Academy, Richmond, BC, Canada — February 2024 – Present

- Leading the development of a website using **React.js** and **MongoDB** to track and manage books and items rentals.
- Leveraging **Docker** to maintain images and deployed the website using **AWS EC2**.
- Maintaining project repository on **GitHub** and used **GitHub Runner** to run the **CI/CD** pipeline.
- Link to Website

Team Lead – Speedgolf Website

Web Development (WSU), Pullman, WA, USA — August – December 2020

- Wrote responsive UI components using **React.js**, **React Material UI** and designed the database to manage courses information using functional **JavaScript**, **Postman**, and **MongoDB**.
- Integrated **Google Maps API** to allow users to find, review, add, or edit information of golf courses nearby.
- Organized weekly **AGILE** sprint meetings to discuss and plan out the workload amongst team members.

Team Lead – Apartment Rental Website

Software Engineering Principle II (WSU), Pullman, WA, USA — August – December 2020

- Implemented a website, with **Object Oriented Typescript** concepts, that allows users to browse for apartments around the area that are for rent.
- Managed database transactions, storage, model creation, and routes controller using **ExpressJS** and **Mongoose**.
- Ensured the functionality of the front-end components and the backend infrastructure by utilizing **JUnit**, **white-box**, and **black-box testing**.
- Scheduled weekly sprint meetings to review tasks, strategize, and allocate workloads among team members.