Tarun Jeevan

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OBJECTIVE

I'm an Adjunct Professor in the Computer Science department of St Charles Community College, currently teaching their IT140 - Programming Languages for System Administrators course. My interests lie in web & network security, web development, and game development and I am especially passionate about teaching and research.

EDUCATION

Master's in Computer Science — Purdue University, Fort Wayne, IN

AUGUST 2023 – MAY 2024

Minors: Psychology & Math

Relevant coursework:

- Software Engineering
- Web Development
- Computer Networks
- Computer Security
- Cryptography & Network Security
- Cyberwarfare

EXPERIENCE

St Charles Community College, St Charles, MO – *Adjunct Professor*

AUGUST 2024 – DECEMBER 2024

- Taught SCC's IT 140 - Programming Languages for System Administrators.
- Worked with 20 students from diverse backgrounds, many with little to no computer skills, to teach them the basics of several programming languages used in areas such as web development, database management, network operations, etc.
- Gave lectures, assigned and graded homework and quizzes, and fielded questions from students to ensure they gained a sufficient understanding of each language covered.

Helmke Library, Fort Wayne, IN – *Speech and Writing Consultant*

SEPTEMBER 2021 – MAY 2024

- Worked with students from diverse backgrounds, guiding them to improve their writing skills, knowledge, and confidence
- Developed and delivered customized speech coaching sessions for students seeking to improve their public speaking skills and confidence
- Provided feedback and editing support for various written materials, including speeches, presentations, essays, resumes, and more

- Wrote and posted engaging blog posts on The Draft, the Writing Center's online blog, designed to answer and address various vital or common writing and speaking questions

Purdue University, Fort Wayne, IN – *Teaching Assistant*

JANUARY 2024 – MAY 2024

Worked as a TA for a Computer Architecture course taught by Dr. Jay Johns. My responsibilities included:

- Supporting student learning objectives through personalized and small group assistance
- Reviewing lesson material with students individually or in small groups
- Grading assignments and tests, providing constructive feedback to students based on results
- Helping the professor recognize learning issues evidenced in one-on-one support instruction

Purdue University, Fort Wayne, IN – *Teaching Assistant*

JANUARY 2023 – MAY 2023

Worked as a TA for a Computer Security course taught by Dr. Zesheng Chen. My responsibilities included:

- Helping the professor develop and implement the lesson plan
- Grading assignments and projects
- Answering student questions and concerns on course content and structure
- Gauging student understanding of the material through their performance on homework, quizzes, and personal interactions
- Compiling a report with the above information and reporting it to the professor to keep him updated on course topic difficulty, areas for improvement, struggling students, and overall student performance

Charter Communications, Maryland Heights, MO – *Information Security Intern*

JANUARY 2019 – MAY 2019

- Worked with a team in the Offensive Security and Compliance Strategy department on a project to automate data transfer between test and production servers
- Assisted with data analysis and report preparation under the guidance of senior team members
- Participated in team meetings and contributed creative ideas for solving internal network security issues
- Completed assigned tasks with attention to detail and within established deadlines
- Demonstrated strong communication skills and professionalism when interacting with clients and team

PROJECTS

Portfolio – *Developer*

MAY 2024 – PRESENT

- Collaborated with 4 developers to design and develop an expert system for predicting heart disease risk based on patient medical images, e.g. chest x-rays, leveraging rule-based and machine learning techniques to assist patients in making informed decisions regarding their health
- Optimized neural network algorithm by increasing training samples, varying training epochs, and tuning hyperparameters to achieve an F1 score of 0.48

Expert System on Heart Disease Prediction - *Developer*

JANUARY 2024 - MAY 2024

- Collaborated with 4 developers to design and develop an expert system for predicting heart disease risk based on patient medical images, e.g. chest x-rays, leveraging rule-based and machine learning techniques to assist patients in making informed decisions regarding their health
- Optimized neural network algorithm by increasing training samples, varying training epochs, and tuning hyperparameters to achieve an F1 score of 0.48
- Preprocessed large datasets and created a user-friendly interface through a custom GPT
- **Jupyter Notebook**: https://github.com/Khurdhula-Harshavardhan/Elevator-Case-Study/tree/Disease-prediction-with-NIH-Chest-XRay-data/Final_Project

Online Writing Tool – *Developer*

JUNE 2024 – PRESENT

- A personal project designed to provide users with every writing and worldbuilding tool necessary for creative and fictional writing.
- Several creative approaches that tie together individual tools create a flexible and versatile experience for end users.
- This app includes secure authentication to preserve and protect credentials and intellectual property.
- Writing tools include a character creation system, custom map builder, story arc recorder, easy-to-use story timeline, flexible notes system, fully featured text editor for writing manuscripts, and more.
- This project uses the Next.js framework and Sanity as a CMS.
- **Repo**: https://github.com/tarunJeevan/writing-tool

Survey Web App Prototype – *Developer*

AUGUST 2023 – DECEMBER 2023

- Collaborated with 3 developers to create a functional web app designed to provide students and student groups with a high quality survey creation, distribution, and participation experience
- Led frontend development using React.js, creating an intuitive and responsive interface for survey creation and participation
- Developed and integrated RESTful APIs with .NET backend, ensuring secure and efficient data handling and user authentication
- Designed database schema and managed data storage with SQL server, optimizing access and storage
- Conducted thorough end-to-end testing using Cypress
- **Repo**: https://github.com/tarunJeevan/web-dev-survey-app

Prison Island – *Developer*

AUGUST 2023 – DECEMBER 2023

- Designed a survival game in Unreal Engine 5 as part of an Independent Study proposal to test whether video games can be used to develop player cognitive skills.
- The Minimum Viable Product (MVP) would feature basic player character movement and status, a single game map, and basic objectives that would require players to explore and experiment with their

environment to solve problems. The MVP would feature a basic combat and crafting system to give players more ways to solve given objectives.
- The aim of the project was to see if players would internalize the rules and limits of the game - which mimic the real world - and retain other benefits such as improved reaction times.
- **Repo**: https://github.com/tarunJeevan/prison-island

Expenses Calc – *Developer*

MAY 2023 – JUNE 2023

- An unfinished hobby project intended to make the process of recording revenue and expenses, calculating taxes, and other fiscal operations much easier.
- The program is written in C++ and currently uses a simple REPL environment to record and track revenue and expenses.
- **Repo**: https://github.com/tarunJeevan/ExpensesCalc

The Proving Grounds – *Developer*

AUGUST 2022 – MAY 2023

- Worked as part of a team of 4 students to develop a functioning prototype of a 3D action game in ~8 months using Unreal Engine 5.0
- Responsible for designing and developing the ranged combat system, inventory system, quests system, tutorial level, and game narrative
    - Used C++ and UE's Blueprint system to program ranged combat, environmental interactions, inventory management, quest acceptance and completion, and a basic tutorial level
- **Download prototype**: https://bit.ly/3NgceUB (Google Drive folder)

2023 Global Game Jam – *Developer*

FEBRUARY 2023

- Collaborated with 4 developers to create a functional 2D, side-scrolling platformer in 48 hours using the Unity engine
- Responsible for developing the character controller, combat system, and game narrative
    - Used C# to design and code player movement, combat, animations
    - Used Unity's built-in systems to animate Sprite movement and actions
- **Play online**: https://spaceowlpro.itch.io/route-to-healing?secret=4tXZWNuJus9pmbNPAw67EwIveQ0

SKILLS

- **Programming Languages:** C, C++, C#, JavaScript, Java, Python, Bash
- **Frameworks:** React.js, Next.js, ASP.NET Core, TensorFlow, MVC Framework, Metasploit
- **Software Tools:** Visual Studio, VS Code, Git/GitHub, Unreal Engine 5.X, Unity
- **Concepts:** Zero Trust Architecture, Cyber Kill Chain, Encryption, Hashing, Public Key Infrastructure
- **Operating Systems:** Windows, Debian-based Linux distros (Ubuntu, Kali, etc)

- **Educational Skills:** Instructional design, Curriculum development, Lesson planning, Assessment and evaluation, Online and hybrid teaching, Adaptability to diverse learning styles
- **Communication Skills:** Public speaking, Active listening, Conflict resolution, Cultural competence, Student engagement and motivation
- **Languages:** English = Hindi = Telugu > German > French

REFERENCES

Jay Johns – Lecturer in Computer Science, Purdue University Fort Wayne

(260) 481-6343 | jdjohns@pfw.edu

Kristine Frye – Director, Writing Center & Service Desk, Helmke Library, Purdue University Fort Wayne

(260) 481-0257 | kristine.frye@pfw.edu

Zesheng Chen – Associate Professor of Computer Science, Purdue University Fort Wayne

(260) 481-6187 | chenz@pfw.edu