Siddharth Subramanian

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EXPERIENCE

Software Engineer – Research | Impactful Computing Lab - NAU, Flagstaff, AZ   **Mar. 2025 – Present**
- Enabled rapid **integration of LLMs** in games and reducing developer efforts by **50%** by architecting a modular **C# .NET Unity plugin** to handle **OpenAI API** authentication, asynchronous request batching, and error handling.

Graduate Teaching Assistant | Northern Arizona University, Flagstaff, AZ   **Sep. 2023 – Dec. 2024**
- Mentored **150+ students** in **C++**, **C#**, **Unity game development** and **Software Project Management**, resulting in a **20% increase** in average test scores.
- Achieved a **50% reduction** in grading turnaround time (feedback delivered within **48 hours**) by automating coursework evaluation processes with **Bash scripts** and **automated test suites**.

Associate Software Engineer – Full Stack | BETSOL, Bengaluru, India   **Jul. 2021 – Dec. 2022**
- Enabled scalable **Kubernetes** deployments and cut image size by **50%** by decoupling services into individual containers, removing **systemd** dependencies, and implementing **multi-stage Docker builds**.
- Improved average React component render time by **25%** by rewriting major class-based components as functional with **React Hooks** and **memoization**.
- Collaborated closely with cross-functional teams and boosted test coverage **3.5x** by building test suites in **Jest**, **React Testing Library**, **PyTest**, **Mockito**, and **Postman**.
- Enhanced UI accessibility, achieving a **100%** score on the **Web Content Accessibility Guidelines (WCAG) 2.1 AA** standard.
- Delivered **2 major releases** 100% on time by leading a **5-member** build and packaging team under **Scaled Agile Framework (SAFe)** and optimizing **Jenkins** pipelines.

Software Engineer Trainee | BETSOL, Bengaluru, India   **Mar. 2021 – Apr. 2021**
- Reduced code complexity by **60%** and increased average spring velocity by **35%** (from 20 to 27 story points) by modernizing legacy **Node.js** codebase to **ES6** and adding comprehensive **JSDoc** documentation.
- Cut database migration maintenance time by **31%** by rewriting **PostgreSQL** migrations scripts using **Knex.js**.

Software Developer Intern | Bolo Meet, Bengaluru, India   **May 2020 – Jul. 2020**
- Improved website load time by **35%** by **optimizing images**, **minifying JavaScript and CSS** files, and implementing **browser caching** techniques.
- Elevated user engagement by **23%** by adding a **WebRTC**-based meeting recording feature to enhance real-time collaboration.

PROJECTS

Homero | Backend Engineer (Freelancing Consultant)   **Oct. 2021 – May 2022**
- Refined the API development process by introducing a **GraphQL-based API** in **Typescript**, reducing front-end data fetching complexity and decreasing API response payload size by **40%**.
- Transitioned **60% of users** to card-based transactions by engineering **APIs** that integrate with **Stripe Payment Intent API**.
- Fortified security and simplified user management by integrating **Google OAuth** and **Passwordless** flows with **Auth0**.

Video Compression using Neural Networks   **Sep. 2020 – Aug. 2021**
- Reduced video file size by **10%** while maintaining high frame quality by conceptualizing and developing a **deep-learning** compression model with **PyTorch** and **OpenCV**.

Hackwell   **May 2021**
- Streamlined hackathon registration for **200+** participants by building a full-stack marketing and registration platform and an admin portal using **Next.js**, **Typescript**, **Firebase** and **SendGrid API**.

Verve Ticketing & Campaigning Platform   **Jan. 2018 – May 2019**
- Boosted ticket sales efficiency by **50%** and served over **10K users** by developing a REST API using **Node.js, Express.js**, **Socket.IO** and **MongoDB** and a cross-platform **React Native** mobile app streamlining ticketing and campaign interactions.

SKILLS

- **Languages**: JavaScript (ES6+), Typescript, Python, C, C++, C#, Java, Go, SQL, HTML, CSS
- **Frameworks & Libraries**: NodeJS, ReactJS, NextJS, ExpressJS, SocketIO, Redux, jQuery, Jest, Django, PyTorch, OpenCV
- **Databases & Cache**: MySQL, MariaDB, PostgreSQL, MongoDB, Redis
- **DevOps**: Git, GitHub Actions, GitLab CI/CD, Jenkins, Docker
- **Cloud**: Amazon Web Services (AWS), Google Cloud Platform (GCP), Microsoft Azure, Vercel
- **Functional**: Jira, Confluence, Linear, Agile, Scrum, Software Development Lifecycle (SDLC), Figma

EDUCATION

Master of Science in Computer Science | Northern Arizona University, Flagstaff, AZ (**GPA**: 4.0/4.0)   **Graduated: Dec. 2024**

Bachelor of Engineering in Information Science | Visvesvaraya Technological University, India   **Graduated: Aug. 2021**