## Siddharth Subramanian

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#### **EDUCATION**

### Northern Arizona University, Flagstaff | Master of Science in Computer Science | GPA: 4.0/4.0

Jan. 2023 - Dec. 2024

- Coursework: Large Scale Data Structures, High Performance Computing, Parallel Programming, Open Source Software
- Thesis: Evaluating the Impact of Al-Generated Textual Content on Game Development Architectures in Unity 3D
- Teaching Assistant: Programming in C++, Game Development in Unity and Software Project Management

#### Visveswaraya Technological University | Bachelor of Engineering in Information Science | GPA: 3.71/4.0

Aug. 2017 - Aug. 2021

• Coursework: Algorithms, Object-Oriented Programming, Database Systems, Operating Systems, Networks, Software Architecture

### **SKILLS**

- Languages: JavaScript (ES6+), Typescript, Python, C, C++, C#, Java, Go, SQL, HTML, CSS
- Frameworks & Libraries: NodeJS, ReactJS, NextJS, ExpressJS, SocketIO, Redux, Jest, Django, PyTorch, NumPy, Pandas, 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

#### PROFESSIONAL EXPERIENCE

#### Associate Software Engineer, Betsol (ReactJS, Redux, Python, Django, MariaDB, Docker, Jenkins)

Jul. 2021 - Dec. 2022

- Led a 5-member build/packaging team for Zmanda through 2 major releases in a scaled agile environment.
- Implemented test suites with Jest and React Testing Library, increasing code coverage 3.5x and ensuring high-quality code across releases.
- Improved overall user experience by leveraging React Hooks and conditional rendering, resulting in a 20% reduction in UI errors.
- Leveraged multi-staged Docker builds to cut image sizes by 50% while maintaining performance and scalability.
- Rebuilt custom-compiled LAMP stack to support TLS 1.2/1.3 in 2 months, attracting a 100% customer adoption upon release.

### Software Engineer Trainee, Betsol (ReactJS, NodeJS, ExpressJS, PostgreSQL, Docker)

Mar. 2021 - Apr. 2021

- Modernized legacy Node.js code to ES6, slashing code complexity by 60% and boosting dev productivity by 35% with JSDoc documentation.
- Optimized database migrations with Knex.js, reducing maintenance time by 31% and enhancing scalability.
- Automated LeTo app versioning, cutting tracking errors by 25% and boosting QA efficiency by 20%.

## Software Developer Intern, Bolo Meet (ReactJS, NodeJS, ExpressJS, MongoDB, WebRTC)

May 2020 - Jul. 2020

- Employed code-splitting, lazy loading, and performance profiling in React app, leading to 35% faster load times and smoother UX.
- Introduced a WebRTC meeting recording feature, increasing user engagement by 23%, enhancing collaboration and functionality.

### **ADDITIONAL EXPERIENCE**

## Open Source Contributor and Maintainer (JavaScript, Dart, Git, GitHub Actions)

Jan. 2020 - Present

- Devised a GitHub Actions workflow for <u>PyShamir</u> to automate PyPI publishing, ensuring 100% release consistency.
- Published an open-source Dart library for decoding JSON Web Tokens, achieving 250K+ overall downloads on <u>Pub.dev</u>.
- Authored an open-source JavaScript library for seamless scroll tracking and dynamic navigation with 150K+ downloads on NPM.

## Consultant (Freelance), Homero (Typescript, NodeJS, ReactJS, GraphQL, PostgreSQL, Auth0, Stripe API)

Oct. 2021 - May 2022

- Integrated Google OAuth and Passwordless authentication with Auth0, fortifying security and simplifying user management.
- Engineered REST endpoints for payments using Stripe Payment Intents API, moving over 60% of users to card-based transactions.

## **PROJECT EXPERIENCE**

### Storefront – Headless E-commerce Backend (Django, PostgreSQL, Redis, Celery)

Jul. 2023

- Architected a modular backend with 20+ API endpoints and 10 data models, featuring secure auth, cart management, and order processing.
- Achieved 95% test coverage with PyTest, improved API response times by 40% with Redis, and handled 500+ async tasks/min using Celery.
- Simulated 1,000+ concurrent users with Locust, optimized performance to sub-200ms latency, and deployed the system to Heroku.

## <u>Video Compression using Deep Neural Networks</u> (Python, PyTorch, NumPy, OpenCV, Deep Learning)

Sep. 2020 - Aug. 2021

Conceptualized a deep learning model to compress videos, achieving a 10% reduction in file size while maintaining high visual quality.

# Hackwell (NextJS, Typescript, Firebase, TailwindCSS, Vercel)

May 2021

• Built a full-stack marketing and registration platform for Hackwell, a college hackathon, and an admin portal for managing 200+ participants.

## Verve Ticketing & Campaigning Platform (NodeJS, ExpressJS, SocketIO, MongoDB, React Native, ReactJS)

Jan. 2018 - May 2019

• Developed a REST API and a cross-platform mobile app that streamlined ticketing and campaign interactions, boosting ticket sales efficiency by 50% and serving 10K+ users.