Vineeth Komarraju

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EDUCATION

University of California, Berkeley · Berkeley, CA

Bachelelor's - Computer Science · May, 2025

Relevant Coursework: The Structure and Interpretation of Computer Programs, Data Structures and Algorithms, Efficient Algorithms and Intractable Problems, Principles and Techniques of Data Science, Introduction to AI, Machine Structures and Computer Architecture

CHIREC International - High School · Hyderabad, India

GPA: 95.2% (Grade 12), 94.4% (Grade 10) · May, 2021

WORK EXPERIENCE

Cyber Security Engineer Intern - *Arete* · June 2023 - August 2023

- Conducted in-depth analysis of real-world attack vectors using threat modeling tools and simulation software like **Metasploit** and **Burp Suite**, leading to a **40% improvement in threat detection capabilities**.
- Performed monthly security audits and vulnerability assessments on critical systems using automated scanning tools such as **Nessus** and **OpenVAS** for vulnerability management, identifying and **resolving over 20 potential security weaknesses**.
- **Automated** three manual security processes utilizing **Python and Bash scripts**, along with Ansible for configuration management, **saving** the team an estimated **10 hours per week** and enhancing operational efficiency by minimizing manual errors.

Data Analysis in Design Intern- *Spaces and More* · April 2020 - June 2020

- Collaborated with the **UI/UX design team**, applying **Agile** methodologies and design thinking principles to enhance project workflows and design processes. Developed proficiency in **Wireframing** and mastered the **Figma** design tool for high-fidelity mockups.
- Leveraged **Python** and **Jupyter** Notebooks for **data visualization** and analysis, employing libraries such as **Matplotlib** for creating comprehensive charts and graphs, and **Scikit-learn** for predictive modeling and data processing tasks.
- Conducted **A/B testing** to evaluate user engagement and experience improvements, utilizing **statistical analysis** in **Python** to interpret test results and inform design decisions, enhancing the effectiveness of social media marketing strategies and **UI/UX enhancements**.

PROJECTS

2048 Game - Enhanced my Java skills by implementing the logic for a 2048 game. Provided with graphics and UI code, I focused on Java algorithms for tile movement, merging, and new tile generation. · Github

Ngrams - Developed a Java backend for a browser-based tool exploring English text word usage history for my data structures course. Integrated with provided JavaScript/HTML frontend, it analyzes input and displays trends using Java packages and diverse data structures · Github

Price Prediction Engine - A jupyter notebook to build a predictive model for the price of bitcoin (Python, API Integration, Pandas, NumPy) · Github

Compound Interest Calculator - A React application to calculate one of 4 variable given 3 (Principle, Interest Rate, Time Period, Amount) · Github

LEADERSHIP AND ACTIVITIES

Cloud@CAL - *Educator* · August 2023 – Present

- Developed and refined a comprehensive curriculum focused on cloud computing concepts with an emphasis on **Amazon Web Services** (AWS), covering areas such as **EC2** (Elastic Compute Cloud), **S3** (Simple Storage Service), and **AWS Lambda** for serverless computing.
- Delivered lectures and interactive sessions that provided hands-on experience with AWS management console, **CLI** (Command Line Interface), and **SDKs** (Software Development Kits), enabling students to deploy scalable and resilient applications in the cloud.

Laya of Berkeley - *Musician* · August 2022 - Present

- Active performer for various south asian cultural events with the group as a guitarist and music director

SKILLS

- **Programming Language**s: Python (with Pandas, NumPy, scikit-learn for data manipulation, analysis, and machine learning), Java (OOP, Backend), SQL (PostgreSQL, MySQL, and TimescaleDB).
- **Web Development**: Experienced in React, Angular, NodeJS, Flask for full-stack development; proficient in HTML, CSS
- **Cloud Computing & Serverless**: Skilled in AWS, GCP, Azure (including services like EC2, S3, RDS, Google Compute Engine, BigQuery, Azure VMs, Blob Storage); experienced in developing serverless architectures using AWS Lambda, Azure Functions, Google Cloud Functions.
- **Version Control & Collaboration**: Proficient with Git (GitHub, GitLab, Bitbucket); experienced in Agile/Scrum environments, emphasizing team collaboration and effective communication of technical concepts to non-technical stakeholders.
- **Design & Multimedia Tools**: Competent in Figma and Adobe XD for UI/UX design collaboration; knowledgeable in Photoshop and Premiere Pro for graphic design and video editing; **Soft Skill**s: Strong problem-solving abilities, continuous learning mindset, effective communication skills, and a commitment to team collaboration and mentoring ; **Languages**: English, Hindi, Telugu, French (Basic)